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KARNAK—COURT OF RAMESES' TEMPLE

THEBES: HER RUINS AND HER MEMORIES.

BY DULANY HUNTER

OF the great cities of ancient Egypt, Thebes alone has preserved the monumental ruins of her former grandeur. All the glories of Memphis, the first capital, are mingled with the sands of the desert; Heliopolis, the once magnificent "City of the Sun," has suffered a fate almost as cruel, for the stately obelisk which stood before her proudest temple is the only stone that marks the place where her throne was spread, and even Alexandria, the fair capital which, centuries later, the conqueror of the world founded by the sea to lure the commerce of the

subject nations to her port, has like these, her elder sisters in the history of Egyptian greatness, been shorn of her splendors; but Thebes has resisted the ravages of time and stands to-day in hoary grandeur.

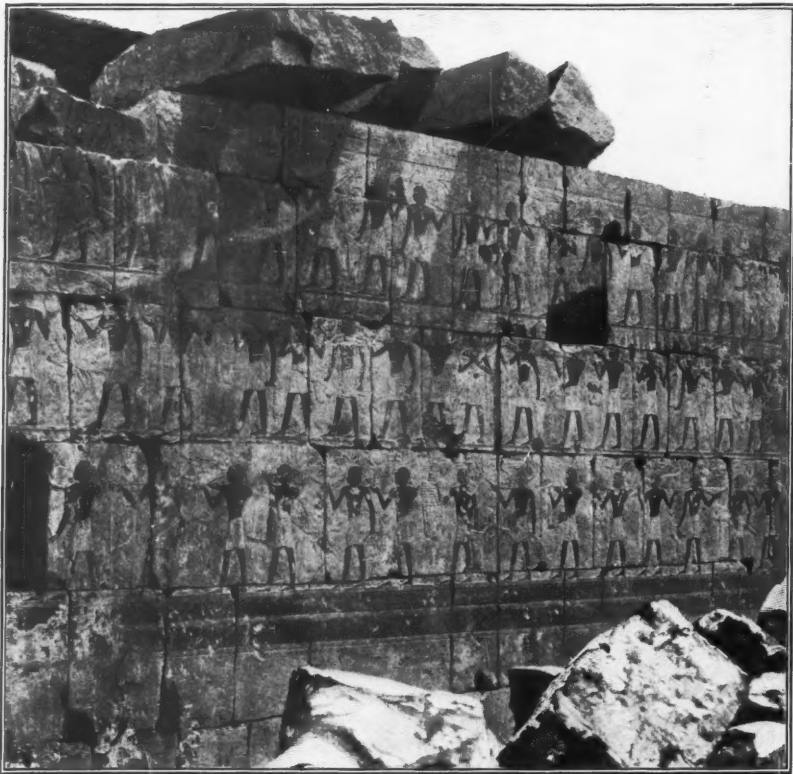
Imagine the great plain of Thebes, green and fertile, bordered by wastes of desert and barren hills receding from the Nile; imagine the superb temple of Karnak, commenced two thousand years before Christ and added to and embellished by all the rulers of Egypt, the grandest ruin that the world can show; imagine the ruins of other temples inferior only to it,

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some approached by long avenues of sphinxes, some guarded by colossal statues of Kings; and, finally, imagine the bare but lovely yellow mountains which serve as royal tombs, casting their majestic shadows among these ruined temple-palaces, and you will then form some conception of the remains of the great capital of the Pharaohs.

In the presence of her ruins, a vision of

a score of peerless ruins upon the quiet plain, little heaps of hovels and an Arab village close to the gates of the elegant temple of Ammon, now known as the temple of Luxor. Massive pylons with spirited battle-pictures sculptured upon their broad surfaces rise to a height of one hundred feet. Statues of Rameses II., four times the size of life, sit in solemn majesty at the gateway. And in front



BAS-RELIEF FROM HATSHEPUS'S TEMPLE, TEL-EL-BAHIRI.

ancient Thebes rises before us, stately and magnificent beyond our dreams of grandeur, the Nile mirroring matchless splendors along full eight miles of its mystic course; on the right, the city proper with its hosts of busy inhabitants; on the left, the palaces, most of the temples, all the tombs—and, beyond, the great goddess Athor waiting to receive into her arms the setting sun. Such the vision—the reality, half

stands a solitary obelisk of pink granite whose lovely fellow now marks a yet more sacred spot—the place of royal martyrdoms at Paris; within the temple, first an immense area surrounded by a peristyle of double columns, many fallen and broken now, and battered colossal statues of Rameses seated at studied intervals against the darkened walls. Then the earlier building of Amenophis III. begins. Past



MIDDLE COLUMNS AND OBELISK, TEMPLE OF KARNAK.

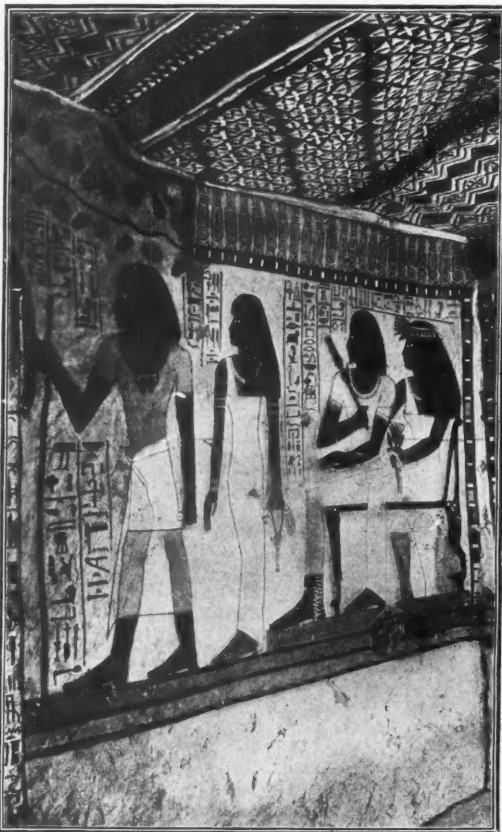
the ruined pylon, two long rows of gigantic columns, that have preserved in almost pristine freshness their glorious capitals of full-blown lotus flowers, lead to the great court with its wilderness of tapering columns sculptured in the lovely form of lotus buds, and farther on sculpture-covered chambers are grouped around the sanctuary; but the great court is the chief glory of the building. The beauty and purity of its conception, the heroic scale upon which it has been executed, its position on the very edge of the sacred river, entitle it to a fame far greater than has been accorded to it owing to the overshadowing grandeur of the temple of Ammon at Karnak, situated only two miles beyond and formerly connected with it by a noble avenue of sphinxes. But the sphinxes no longer gaze fixedly at each other across this royal roadway where the

chariots of none but mighty Pharaohs once rolled in solemn state. Now the route is unguarded, ruin-strewn and desolate, save near Karnak where a few of the great stone images still remain in place. And high above them stands the majestic pylon built by a Ptolemy yet not unworthy to serve as an approach to the precincts of the grandest

temple of Egypt's grandest Kings. This splendid gateway looks out upon the south, but the main entrance to the temple is from the west, and the long sphinx-lined avenue which once connected it with the temple of Gourneh on the opposite bank of the Nile is broken only by the broad waters of the river.

Only a master-hand would be equal to

describing, fully and without injustice to the subject, this the world's greatest temple, though one must see the ruins to realize their grandeur and the marvelous beauty of their setting. No sight in nature or in art ever so impressed the writer as the sunrise he once beheld from the pylon of Karnak. The pale gray light of early morning, the unbroken silence, the warm, still air itself, all seemed charged with mystery, as color gradually came into the picture, and the sun



TOMB DECORATION.

rising in serene grandeur behind the distant mountains revealed a scene of such exquisite fairness and serenity that it seemed the spirit had wandered into another world or returned to this world of ours after it had been calmed and purified. But to recall all the memories of Thebes, all the departed glories of Egypt, one must linger

in this temple until the lights of day have faded and the deepening shadows appear to people the deserted halls with the regal figures of their former masters, who pass through them in a stately procession which makes the most truly royal pageant that ever entered the enchanted realm of the imagination.

First comes Usurtesen, the mighty builder, who, not content with his great works at Thebes, issued his royal mandate and the glorious Temple of the Sun arose in the desert city of Heliopolis to throw unfading luster upon Egypt.

The next figure of mark is another Usurtesen, great-grandson of the former, and the chief military hero of the Old Empire, who extended the borders of Egypt past the Second Cataract and raised in commemoration of the achievement the frowning forts still to be seen upon the precipitous rocks above the Nile at Semneh; who carried his victorious arms to the coasts of the Red Sea and then returned to Thebes to be almost deified by a grateful people.

Amenemhat "the Good" follows. He has bestowed upon his country gifts worthy of a Pharaoh, for it was he who made the great Lake Mœris, thus placing Upper Egypt beyond the danger of famine, and upon its banks constructed the marvel of his age—the celebrated "Labyrinth," considered by the ancients to surpass even the Pyramids in wonder.

But his immediate successors, whose shadowy forms pass on without leaving an



THRONE-ROOM, TEMPLE OF RAMESSES III.

impression, were destined to bow in vassalage to those rude "Shepherd Kings" who almost totally destroyed the ancient civilization in the Delta and paralyzed the ener-



LUXOR FROM THE RIVER.

gies of the Theban monarchs, though they spared their monuments.

Then, several centuries later, comes the great Aahmes, who rose up and expelled the invaders, utterly routing the forces of Apepee, the celebrated King of Lower Egypt who intrusted such wide powers to Joseph. Surely it was a great epoch in Egyptian history when Aahmes rode in his war-chariot at the head of a half-million warriors and drove the followers of the "Shepherd Kings" back into Asia. And yet he hardly looks the dashing military man we should expect to see, his thick, closely curled black hair and small though well-defined features suggesting rather the meditative and astute politician.

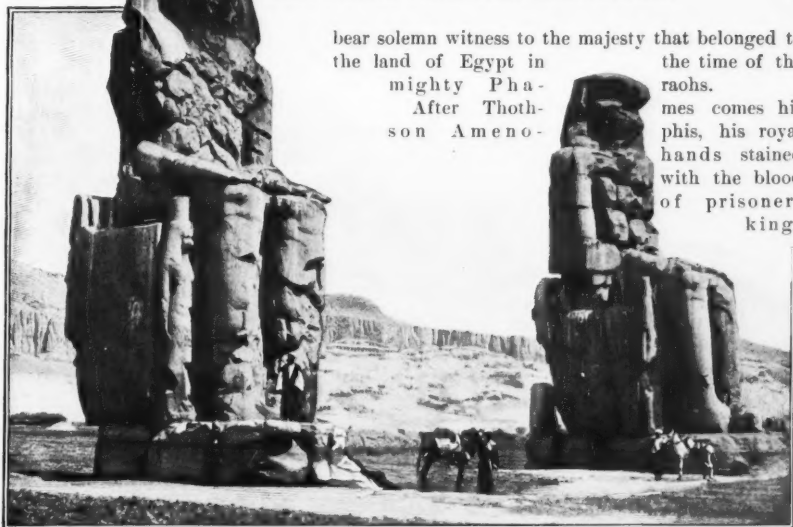
And here is Thothmes, grandson of

Aahmes, and the first great Egyptian conqueror, who not only extended the borders of his country southward but swept into Asia and avenged the humiliations that Egypt had suffered during the centuries of the rule of the Shepherds.

His daughter Hatshepu, "Queen of the South and of the North," as she proudly styled herself, comes next. She has shared the throne with her renowned father and her yet more illustrious brother, but the greatness of neither has overshadowed hers. Bold and enterprising as those great warriors, she shrank from no conflict; and yet she preferred the fruits of peace above the laurels of war, as that unique temple which she built in commemoration of the successful expedition to the land of Punt



TOMB OF RAMESES IV.



THE COLOSSAL STATUES OF MEMNON.

bear solemn witness to the majesty that belonged to the land of Egypt in the time of the mighty Pharaohs. After Thothmes comes his son Amenophis, his royal hands stained with the blood of prisoner-kings

attests. But her long and glorious reign closed abruptly, and the passing out of history of the greatest Queen who ever ruled over Egypt's destinies is shrouded still in mystery. Perhaps her brother Thothmes might have been able to throw some light upon her sudden, silent disappearance, for his unbounded jealousy pursued her even beyond the grave and but for the unskillfulness of his workmen the name of Hatshepu would no longer be decipherable upon her grandest monuments—the temple at Tel-el-Bahiri and those two peerless monoliths before the venerable temple of Ammon which lift their deep-red beauty almost a hundred feet above the bright green plain of Thebes.

Thothmes III. passes now. The greatest conqueror of the Pharaohs, he seems almost a demigod, for his triumphant armies have not only reduced the neighboring nations to subjection, but, crossing the mighty waters of the Euphrates, he has struck terror to the distant empires of Assyria and Babylon and now proudly calls their great Emperors his vassals. Then, too, as if by magic, he has raised a marvelous multitude of temples—the most notable of his buildings being the wonderful pillared hall at Karnak and the great obelisks which, now standing in Rome, Constantinople, London and New York,

—in all the centuries of her existence perhaps Thebes witnessed few spectacles as ghastly as the return of this monarch from foreign victories, his vessel grimly decorated with royal heads.

Amenophis III. advances next. His fame as a builder is imperishable, for though his grandest temple-palace has fallen to the level of the plain, the twin colossi which he placed before it still sit amid the surrounding desolation in unmoved majesty and silently assert the grandeur of this King.

There is a gap in the procession now. The temple of Ammon is deserted. Khun-aten, Amenophis' son, has embraced a strange religion and practises its mysterious rites not at Thebes, but at Tel-el-Amarna, where the weird worship of the solar disk is performed also by several of his successors.

But Ramses I. rises up. The old religion of Egypt is reestablished and henceforth the worship of Ammon is conducted at Karnak with even increased splendor.

And now comes the imposing form of Setee, "the Pharaoh of the Oppression." Not tall, but broad-shouldered and of massive build, face and figure alike full of majesty, he sweeps on through his marble halls calmly, grandly, too proud to look even disdainful.

Then follows Rameses the Great, his patrician head thrown back in evident satisfaction at the magnificence by which he is surrounded.

And after him a stricken figure. It is his son Menepthah, who has suffered the seven plagues of Egypt, the last and most terrible of them carrying off his beloved child who he had expected would succeed him. He has endured all these, and yet one more great humiliation, for those bleared eyes once looked out upon the Sinaitic desert and beheld the flower of the Egyptian army and nobility arrested in their pursuit of the children of Israel by the breaking of the flood-gates

of the seas, which utterly destroyed them.

But Rameses III. comes now. Mark him well, for he has been called "the last of the great sovereigns of Egypt." Those arms that are so calmly folded as he passes by have been lifted against all his enemies in triumph, and that face now so serene and immobile has glowed so often with the flush of victory that we wonder it should ever become pale and tranquil again. But, his wars over, this Pharaoh cultivated all the arts of peace, and the last great temple built by an Egyptian King was the one raised by him at Thebes to commemorate his military and naval successes ere he—as has been so simply and beautifully



BAS-RELIEF, TEMPLE OF KARNAK.

recorded—"over the whole land of Egypt planted trees and shrubs to give the inhabitants rest under their cool shade."

The grand procession is terminated now.

home of the Pharaohs to see their empty tombs across the river,



AVENUE OF SPHINXES AND PYLON OF TEMPLE, KARNAK.

The descendants of Rameses go by, but borne on litters, toying with concubines, fanned by slaves, guarded by eunuchs, and upon their prostrate forms the high-priests of Ammon climb to sovereign power.

But, finally, a strong man rises and takes into his hands the reins of government. We note him, not because he comes up to the stature of the old Pharaohs, but because it was he, Sheshonk, who swept into the land of Israel and destroyed the splendid throne of David and of Solomon.

Then, last of all, strange figures pass before us as masters of these sacred halls, Ethiopians, Assyrians, Babylonians, Persians, but their strange, wild cries of triumph seem to turn to thunders of applause in honor of the calm, majestic Pharaohs who have gone on before them—gone on before them and before all other peoples, leading the vanguard of the nations that have civilized the world.

We leave the ruins of the great temple-

passing on the way the picturesque ruin of Gourneh, which lies directly opposite Karnak and would excite the wonder of the traveler anywhere except at Thebes, but amid the profusion of grandeurs here the fallen temple-palace of Setee and Rameses seems hardly more than a charming shadow upon the silent plain.

And now we enter "the Valley of the Kings." It is a desolation, but a royal one. No longer the freshness of the plain; no blossom, no blade of vegetation even, springing from the unpolished sides of the great yellow masses of stone that rise and roll and fall in splendid grace around us, the roadway a mere thread winding about their bases. It is a desolation, but of a color a king might wear with pride upon his coronation-day. And through this brilliant, sterile chaos, such as might have existed before the world began, the bodies of the Pharaohs were borne to entombment within the cliffs and slopes of the silent

valley. They stand apart, these sepulchers, as if in recognition of the solitude of death, the loneliness of greatness. Always a lofty entrance hewn in the solid rock, always a long-drawn passage descending by slow gradation to the tomb-room, light at first always, then ever-increasing darkness; the life, the work, yea, sometimes, even the unrealized aspirations of the kingly occupant painted in vivid fresco everywhere; and in the center of the great chamber a gigantic block of granite hollowed to receive the gilded coffin of the

mediate foreground; Karnak and Luxor beyond the trembling band of blue across the brilliant plain; to the right, in the distance, Medeenet-Aboo; a little nearer, the solemn figures of the "twin colossi" and the dismantled walls of the Rameseum; and back of all the splendid sweep of sun-steeped mountains against which, almost at our feet, the matchless temple of Queen Hatshepu stands revealed—a building of supreme importance, at once preserving the majesty and grandeur of Pharaonic models and foreshadowing the

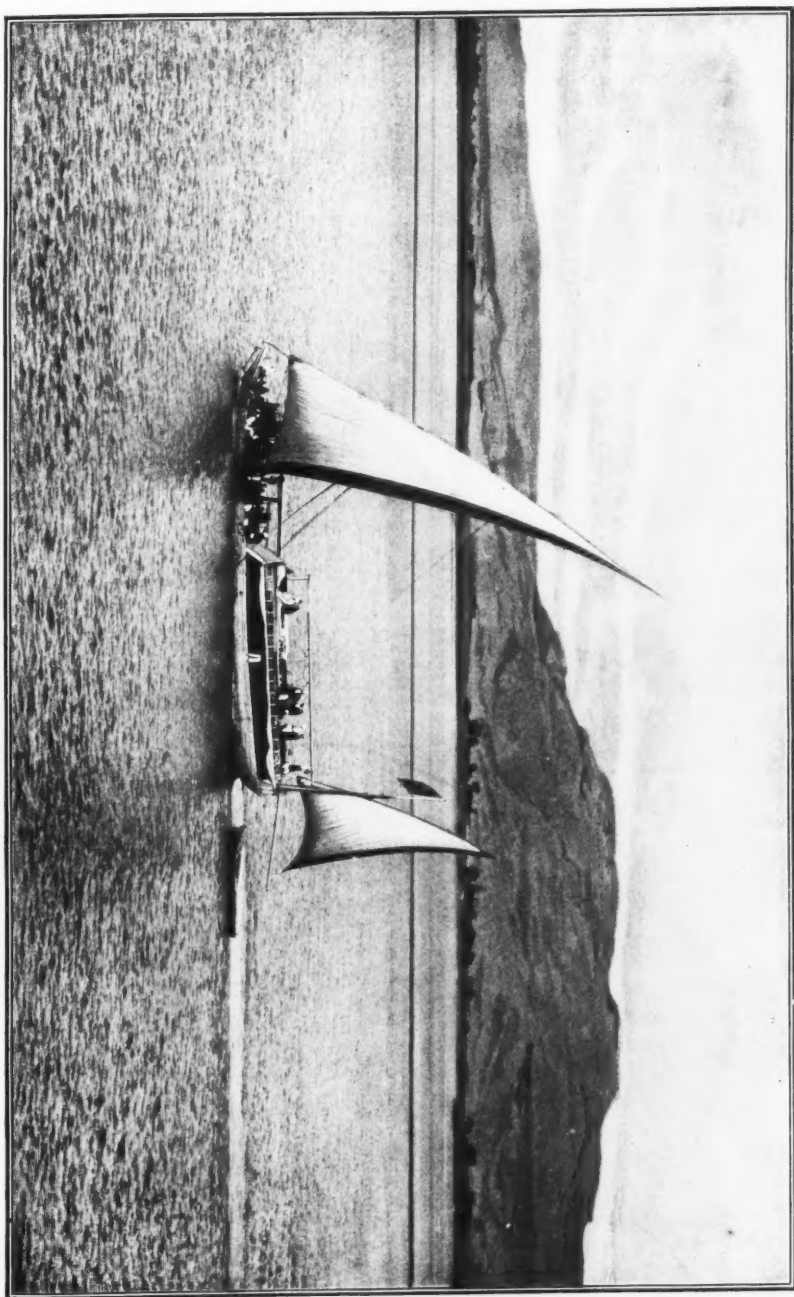


AN INTERIOR COURT, PAVILION OF RAMESES III., MEDEENET-ABOO.

dead. Such are the tombs of the world's most splendid Kings, wherein their bodies, precious embalmed, had remained undisturbed for close upon four thousand years, when the vandals of the present day rolled the stones away from the doors of these sepulchers and carried off the royal mummies in dishonor. Narrow paths around the mountain-side soon lead us to their summits, and then, for the first time, we behold a view embracing all the ruins of the ancient capital—Gourneh in the im-

mediate foreground; Karnak and Luxor beyond the trembling band of blue across the brilliant plain; to the right, in the distance, Medeenet-Aboo; a little nearer, the solemn figures of the "twin colossi" and the dismantled walls of the Rameseum; and back of all the splendid sweep of sun-steeped mountains against which, almost at our feet, the matchless temple of Queen Hatshepu stands revealed—a building of supreme importance, at once preserving the majesty and grandeur of Pharaonic models and foreshadowing the

grace and beauty of the unborn art of Greece. Marvelously posed, against a sheer cliff of yellow mountain, its marble terraces, like cascades thrown by the hand of Nature, fall to the plain below in a poetry of form and color to which the eyes of men have been unaccustomed since the grand but somber architecture of Rome became dominant in the world. Here, as usual, was a pylon at the entrance to the holy precincts, and the long avenue of sphinxes seen so often leading to the The-



IN THE VALLEY OF KINGS.

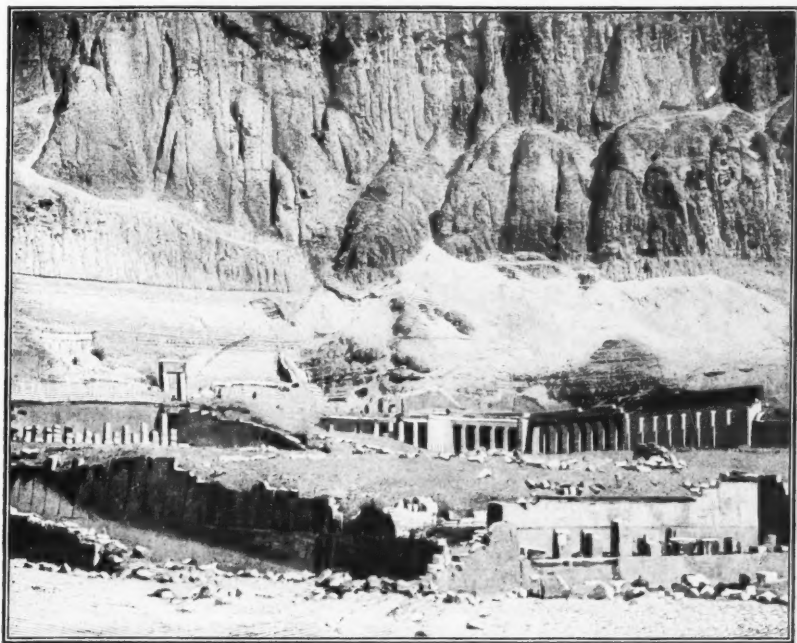
ban temples, then the terraces of glistening marbles—marbles of dazzling whiteness against sun-polished stones that seem to have imprisoned the very light of day. Here, too, the walls were sculpture-covered, but no scenes of strife and carnage, no grim warriors flushed with pride of conquest, no Pharaohs relentless in the hour of triumph, are immortalized, for in this temple built to commemorate the success of the commercial expedition to the distant land of Punt, Victory appears unarmed, serene, benign and lovely. Hatshepu has had every detail of the undertaking pictured, from the time her vessels sailed from their lonely port on the Red Sea to the moment when her subjects reëntered the joyous capital laden with gold and silver, ivory and incense, and followed by the earliest and perhaps the most extraordinary embassy recorded in history, an embassy led by the grotesque little hunchbacked consort of the King of Punt, who, it appears, sacrificed and prayed, on terms of equality, with the august daughter of the Pharaohs before the day's ceremonies were ended.

The golden screen of mountains is, to the south of this temple, honeycombed with tombs. The great ones of the earth, queens, princes, high-priests of Ammon, all found splendid sepulture here. And within their shadows, on the plain, the magnificent Rameses built his most famous temple, known now as the Rameseum. But time and the violence of conquerors have left little of this noble monument. Throughout the second court, the colonnade before the great hall, the hall itself, and the group of chambers yet beyond, great square pillars and massive columns alike are battered, broken, fallen, but a score of giant statues of the King, with folded arms and calm poise, still stand erect among them, some headless, some serenely gazing beyond the massive ruins.

To the south of the Rameseum, the extensive pile of ruins called by the Arabs Medeenet-Abou forms, perhaps, the fairest picture of the plain, for, in the distance, it appears embowered in trees, and some of its walls still rising to a splendid height have lost their crowning beauties only.



THE TEMPLE OF LUXOR.



TEL-EL-BAHIRI—VIEW OF TEMPLE OF HATSHEPU.

Here we find remains of ancient domestic architecture of highest interest and value, for the lofty pavilion of Rameses III., which serves as a stately entrance to the precincts of this group of temples, is matchless even at Thebes as a specimen of the residences of the Pharaohs. A small but exquisite temple built by the illustrious Queen Hatshepsu stands on the right.

Then we pass to the large and well-preserved temple of Rameses III., bearing upon its walls in marvelously executed sculptures the proud history of the King who built it in honor of the great god Ammon. The Greeks and the Romans also added fair examples of their taste, as two tall columns with rich capitals of flowers yet standing prove.

When the jeweled lights of sunset fall upon these precious ruins, and the golden mountains in the background are aglow with the colors of amethysts and sapphires, the dark figures of the twin colossi greaten slowly and grandly in the quivering atmosphere as we approach them, and finally they completely dominate the scene.

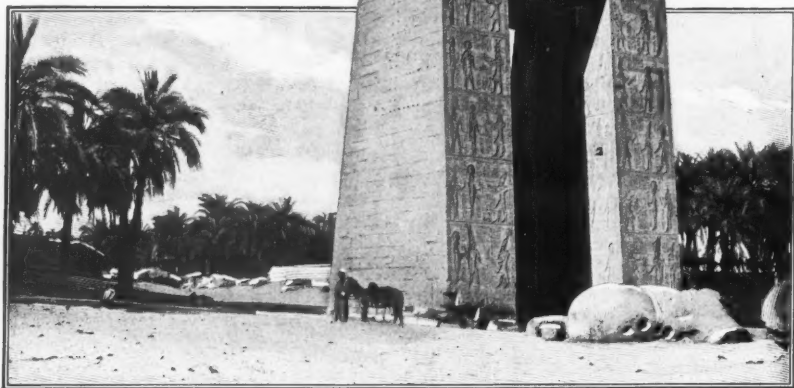
The thirty centuries that have passed over their hoary heads have robbed them of the high crown of an Egyptian King which they bore when Amenophis III. placed them here, but, time-worn as they are, these two mighty blocks of stone yet tower full sixty feet above the surrounding verdure, and even apart from their great age, they are from their size, attitude and position the most impressive images that man has ever fashioned. Ancient Roman travelers in Egypt invested one with peculiar mystery and charm, claiming for it the marvelous gift of sound—Strabo first, then Pliny, Tacitus, Juvenal, and other writers during the next two centuries, recording that often at sunrise it emitted music.

But the "vocal Memnon," as they call it, is silent now—silent perhaps forever—though the great image and its fellow still sit erect in awful majesty upon their granite thrones keeping eternal guard over the desert and all the precious secrets buried beneath its sands.

Yet what a story they could tell of the grandeur and vanity of human effort!—

they who saw Thebes illumine the world and perish; who watched strange nations struggling for dominion at her gates; who looked on while Egypt subdued the Hittites, the Cushites, and many others—

ants the rulers of Egypt. And to them will be known the answer to



PYLON OF PTOLEMY, KARNAK.

strove with the Ethiopians, Assyrians and Babylonians—then fell before the arms of the hated Persians, but fell arrayed in such magnificence that the spoils stripped from her were for centuries the glory of the conqueror's kingdom. They have seen, too, the triumphant armies of Greece pass before them, and the soldiery of Rome busy at their hideous work of destruction. They stood there while the Arabs dreamed their golden dream of civilization and vanished, and while the Turks followed bringing only desolation—but one great man among them rising up and attempting to draw some order out of chaos, yet pathetically failing. They still see his descend-

the momentous question whether the nation that is dominant in the world to-day will succeed where the Assyrians and Babylonians, the Persians, Greeks and Romans, the Arabs, Turks, and others, failed, or if the proud Mistress of the Seas who has brought the most coveted portions of the earth beneath her sway will find that she is unable to make an impression upon the desert sands. They will know this and a thousand other things, but they will not break their silence unless, perchance, some great convulsion of nature gives them voice, and then they will make use of the gift only to utter a solemn greeting to their old friend, the Sun.



STATUES OF MEMNON AT OVERFLOW OF NILE.



Drawn by
Vincent A.
Scoboda.

YANK TATE was a single-minded jack-of-all-trades, short, square-bearded, open-eyed, and as honest as a human being may be. In spite of his versatility he was a master-seaman and mechanic, and, helped by his single-mindedness, a faithful devotee of an ideal which had come to him in childhood and clung to him through the years. It had taken him in early manhood from carpenter and joiner's work to a shipyard at less pay. It had impelled him to go to sea in the first carpenter's berth that offered. It had dominated all influences that shaped his wanderings, and finally, after years of experience as a football of Fate, it had brought him to Eastern waters—the nursery of pirates—and left him stranded “on the beach” at Manila, from which he had been rescued by the Rev. Mr. Todd, missionary, who recognized good material. Mr. Todd had labored and wrestled with his soul, vainly, until Yank learned that he needed a mate in his little missionary brig, whereat, both made concessions: Yank got a berth, and acknowledged him-

self saved, provided that Mr. Todd would consider the agitation closed and not expect him to pray in his watch below. And the missionary agreed. He knew nothing of the secret, unsullied ambition hidden in Yank's honest heart to become a roaring, bloody-minded, walk-the-plank, skull-and-crossbones buccaneer; so the watch below was given up to sleep and secular thought, and Yank's chances for backsliding were a hundred per cent better.

But thus far, he had met no pirates, unless the nondescript craft coming out of the west propelled by sweeps was of that nature.

Mr. Todd was palpably anxious. Sweltering through six days of dead calm with tar oozing from ropes and pitch from deck-seams, while the barometer dropped steadily to 28.56—sure sign of a typhoon—was troubling enough without this additional menace. Below in his desk was the accumulation of seven years' innocent trading with the innocent islanders—about ten thousand dollars' worth of little iridescent globules much valued in jewelry manufacture—which he had taken in exchange for Bibles, knives, trinkets, et cetera, from different converts on the islands of his route. And here he was in piratical seas with a small crew of non-combative Kanakas in his forecabin, and only one white man to help him.

He was as good a seaman as Yank and a better navigator; yet he could not classify the approaching vessel. She had the hull of a Chinese junk, the mainsail and gaff-topsail of a schooner, and a lateen foresail slung to a heavy yard, while out over the bows was a cocky stump bowsprit and old-fashioned spritsail-yard with sail attached

—clearly a hybrid of the high seas, a makeshift of hard times; and as she slopped her way along, her sails flapped ludicrously with the draft of her motion.

"Perhaps," said Yank, handing the glass to his superior, his brown eyes glistering, "she's a pirate. Ten sweeps and two ports to a side? Big crew."

"Let's hope not," answered Mr. Todd, gravely. "But if so, let us hope that the other one is a war-vessel."

Half a mile to the south, and extending east and west about four miles each way, was the northern face of an atoll, or coral reef inclosing a lagoon. Within this lagoon was anchored the other craft mentioned, a large, black and rakish brig, whose sparkling guns and generally stylish appearance suggested government ownership. Though they had flown their own flag that morning, as a slow current drifted them around the atoll, the signal was not answered, and none of her crew was visible. Close study with the glass had shown them a thickening of the reef on the south side, where the debris of the sea had formed land, and here were a few stunted palms and what looked like tents. The same scrutiny had disclosed an opening in the reef on the east, and another on the northside. Had there been wind, Mr. Todd would have entered for further acquaintance. As it was, with a typhoon coming, the atoll was a place of danger, and he wondered why the brig did not warp out. Early in the morning he had sent down upper spars and stowed all canvas except a storm-sparker and foretopmast-staysail, and now, with nothing to do but watch the approach of the suspect to the westward, he improved the time by hiding his treasure and other valuables and destroying his account-book; but to no avail, for the first remark of a villainous-looking swash-buckler who climbed over his rail an hour later was:

"Been a-lookin' fer you. Hand ober them pearls."

He was a giant mulatto, with bloodshot eyes, fang-like teeth, and a settled grin on a face further distorted by every evil thought and passion. He was followed by a crew of about thirty—cutthroats all—as nondescript as the craft bumping alongside. They were of every breed of men,

black, white and yellow; they were dressed fantastically, each to suit himself, but were armed alike, with short cutlass and heavy pistols. They crowded the wondering Kanakas forward while their leader interviewed Mr. Todd and his mate.

"Pearls, Mr. Todd," he repeated. "Hand ober dem pearls."

"What pearls?"

"No time to hear you lie," he said. "Hear all about you and your pile. Come aft here, four hands," he called to his men. Four came. They seemed to know what was wanted. Quickly and silently they seized Mr. Todd, throttled his angry protest, bore him to the deck and bound him; then fastening the end of the mainstaysail halyards to his ankles, they hauled on the other part and swayed him up, feet first, until his fingers cleared the deck. He writhed and struggled to lift his head—successfully; but they fastened his wrists to the life-rail, bowsed him higher, and belayed. Yank Tate watched in fascinated horror, and the pirate lighted a cheroot.

"When you're ready to tell, I'll lower you," he said, quietly.

The unfortunate missionary groaned, and cried unto heaven for help; then he appealed to Yank, then to his crew, huddled near the windlass, lastly to the pirate captain.

"Mercy," he gurgled. "Yes, yes, take them."

Flesh and blood could have stood it no longer. He was black in the face when they stretched him out on the deck, and for five minutes was unconscious; then he opened his eyes.

"Where?" asked the pirate, bending over him.

Mr. Todd did not answer.

"Up wid him again," ordered the mulatto, and they manned the rope; but Mr. Todd lifted his hand.

"Under the cabin," he whispered, hoarsely—"starboard side—near the dead-wood—loose plank."

"Good."

The captain descended the main hatch and returned in a few minutes with a canvas ditty-bag that bulged with its contents. His mood had changed; he laughed, and waved the bag over the head of the still prostrate missionary.

"All in the sabin' o' souls," he chuckled. "All fo' de glory o' God. Now, I tell you," he added, more seriously, "you go right 'long an' git some more. I wait for 'em. I let you keep this little rotten ol' brig—good 'nough to sabe de heathen wid—no good to me—too small. But—how much money you got down in yo' desk?"

Mr. Todd rose unsteadily to his feet and answered brokenly:

"I have a very little—not a week's pay for my crew. I have provisions—yam, cereals, salt meat, canned goods, coffee. Take what you please. Kill us if you like. But, I enjoin you, in the name of an outraged God, not to torture us."

The pirate's face sobered to its sneering grin. He pointed to his craft alongside. "See dat vessel? What you call her rig? Once she was a mandarin junk—sixty men. Dey all walk de plank. See dat mainsail? Dat belong to a down-east Yankee trader. Cappen an' six men—all yo' countrymen. I hang 'em all up to dat gaff 'fore I cut de mast out fo' myself. See dat fo'sail? Arab dhow. Dey all roast. Wha' you whinin' 'bout? You's de goose dat lays de egg. Dat's why I let you go. You keep yo' money. You keep yo' brig an' yo' men, an' yo' grub. Sometime I ketch you agin and git mo' pearls."

"Monster!" said Mr. Todd. "And do you think that I shall be a party to such a compact? Fool. Kill me at once and your chance of continuing your infamous career is better."

"Wha' you do?"

"Do you think," went on the enraged missionary, now in command of his voice and vocabulary, "that you have robbed a weakling, a man who will rest content? You have taken my all. It is mine, gained by honest barter. There are men-of-war in these seas. I have influence. I will see you hanged."

For a moment or two the pirate chief seemed to be thinking deeply; then he said to his men:

"Put it roun' his neck, run him up to de masthead and slack him down."

Mr. Todd was not bound—he was simply held tightly in the clutches of three while the fourth knotted a hangman's noose in the end of the halyards,

and adjusted the knot under his ear. He struggled and fought, crying out inarticulately, until the men forward lifted him clear of the deck; then, up he went, wriggling and twisting, his long coat-tails and longer legs thrashing out at right angles to his line of ascent and his hands gripping the rope over his head. This saved him. Had he been bound he would have strangled. As he went up to the block aloft, Yank Tate, wonder and doubt, shock and horror intermingled in his open countenance, stepped up to the captain.

"Hadrn't oughter to do this, Cap'n," he said, argumentatively, and almost pleadingly. "There's a man-o'-war in yonder. She can see; she'll know, and she'll follow you."

"Wha—who——" yelled the pirate, hilariously. "Bill Swarth—a man-o'-war. Yah-yah, he'll see; he'll know—but he won't foller. Hey, dere," he called forward, for Mr. Todd was chock-a-block, "slack him down—slack down de golden goose."

Yank drew back, and Mr. Todd came down. He lay on the deck for a time, as before, then assisted by Yank, arose to his feet, and hung to the life-rail, his breath coming and going in wheezing groans, while his dark eyes sparkled luridly.

"Now," said the mulatto, in a quiet voice, "when you see me hanged you'll know how it feels, and 'joy it much better. I'm goin' now. I won't report you to any 'Merican consuls roun' here, 'cause you might be called home to tell why you swindle natives in yo' missionary brig. So, you jess go 'long an' git mo' pearls fo' me. An' say——" he pointed to the atoll—"don't make no complaints to dat man-o'-war in dar, or you'll lose de money I lef' you, an' yo' brig. An' you need 'em in yo' business."

Mr. Todd, his solemn face working convulsively and his long frame swaying as he rested his weight first on one foot, then on the other, gave voice to short speech, which, in his honest anger, was a prayer—a supplication—a calling down of the wrath of Omnipotence on the head of the despoiler, but outwardly, with regard to its terseness, explosiveness, and commonplaceness of expression, it was an oath, nothing else; a plain imprecation, and it

moved the pirate to tears—of laughter.

"Yah-yah," the mulatto yelled, while he danced back and forth, swinging the bag of pearls. "Yah—ho—ho—I better go sabe souls, too. I cuss most as good as dat myself." Then he sobered, suddenly, and ordering his crew back to their craft, followed them, singing loudly with mock earnestness:

"Dere is work for all in de vineyard of de Lord——"

He sang only this much. Mr. Todd, with fingers in his ears, had turned his back and was moving aft, which gave Yank Tate the opportunity of his life. He followed the pirate chief and caught him at the rail, interrupting the song.

"Got all hands, Capten?" he said, quickly. Want a good hand—a carpenter?"

For answer he was knocked prone upon his back by a blow of the huge mulatto's fist; and while lying there, too dazed to rise, and with his pulpy nose spouting streams of blood, listened to this:

"No, you no-account hypocrite—you robber of natives and obtainer of money under false pretenses—I don't want you in my ship. I'm p'ticular who I 'sociate wit'."

The pirate climbed over the rail, ordering fastenings cast off and sweeps manned. When ten yards separated the two craft, Yank arose, disfigured, chagrined, and as angry as it was possible for him to be with a fellow-creature.

"You come back here, you half-cooked moke," he yelled, shaking his fist. "Come back here an' fight it out. I kin lick you, big as you are. Come back, you nigger—you nigger—you damn nigger!"

A derisive laugh rang out, and the strange craft swung around the brig's bow, making back to the west. Yank drew a bucket of water, swabbed his swollen features, and went aft, where Mr. Todd was leaning moodily against the rail.

"What happened?" asked the missionary. "Why did he strike you?"

"Well, just this," answered Yank, in some confusion, not knowing how to explain—then deciding that an out-and-out lie was best, he said:

"I went up to him an' told him that he was wrong, an' wicked, an'—an' such

like—an' told him we'd pray fur him. But he didn't agree to it, an' plugged me."

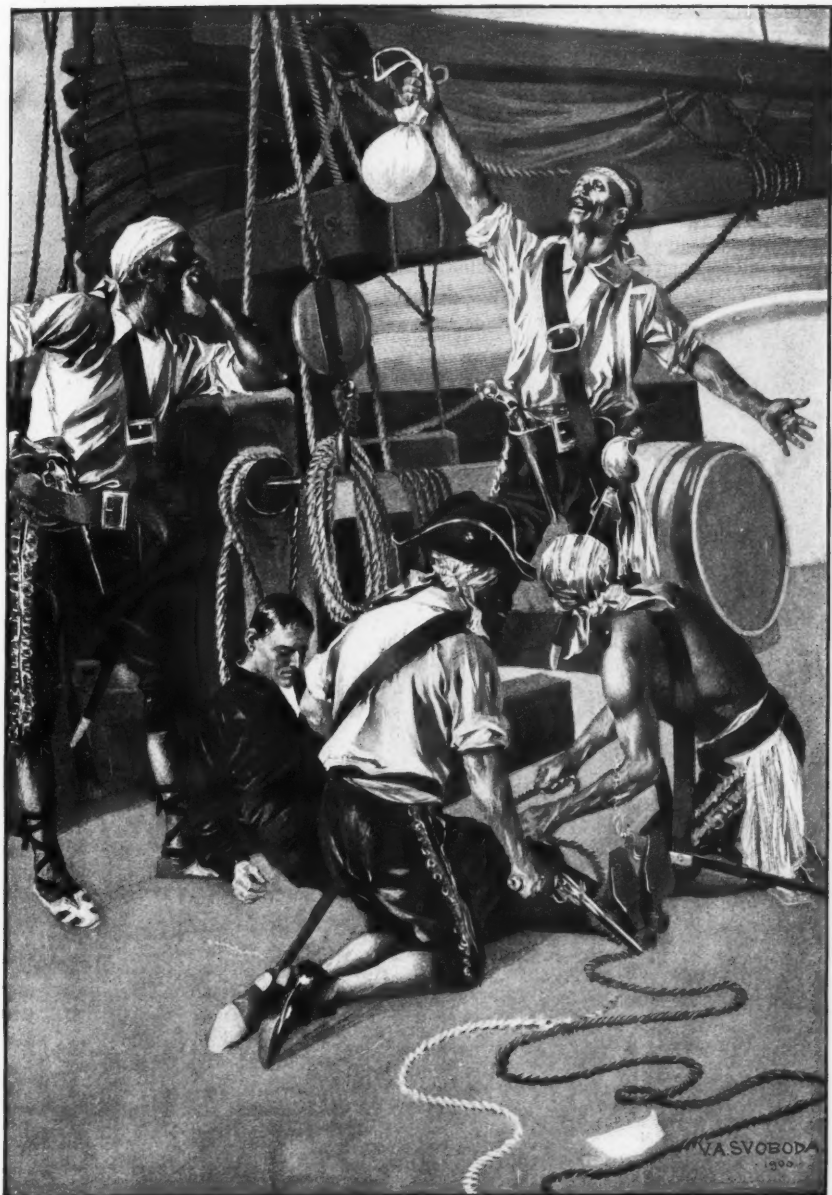
"You were wrong yourself, if not wicked. No prayer will avail with him. He is a type. I am an instrument of the vengeance of the Lord. I feel that I have been chosen, perhaps you also. I feel that the Lord will decree, having sorely tried us, that we are to meet that man again."

"Mebbe. I kin lick the stuffin' out o' any damn Ethiopan, stand up an' knock down, that ever stole a chicken if he'll only——"

"Hush. When will you reform your vocabulary? Go forward; send three hands aft to the spanker, and stand by the foretopmast-staysail sheets. There is wind coming. While you are waiting, get all the small chain on deck, and overhaul as much forward of the windlass as you can. We may have to use it—though I doubt that we can clubhaul against a reef rising out of the deep sea."

Yank answered and obeyed. And the events of the next twenty-four hours followed in such quick succession that he was spared the further pain of chagrin and disappointment. The typhoon came down upon them with a preliminary darkness to the north followed by a deluge of rain. Then came wind, gentle at first, which enabled them to cast the brig on the port tack with small steerage-way; then a succession of furious blasts, the second of which ripped the storm-spanker to ribbons; then a steady, screaming pressure which bore men against the lee rail and flattened the ground-swell of the sea to a milk-white froth. Even with the helm hard-down, the brig would not steer, but payed off toward the atoll. Mr. Todd knew that with the staysail furled to balance the loss of the spanker, the brig would only drift bodily toward the jagged reef to leeward. As there was not a sail on board half as strong as the lost spanker, and as the staysail might go at any moment, he decided that there was but one thing to do, scud on the only track which might be open—through the northern inlet of the reef to a dubious anchorage, or to a journey through the eastern inlet to sea-room and safety.

He took the wheel himself—with the



Drawn by Vincent A. Svoboda.

"HE LAUGHED, AND WAVED THE BAG OVER THE HEAD OF THE PROSTRATE MISSIONARY."

Kanaka helmsman to leeward to help him—and put it up, roaring orders to Yank regarding ground-tackle. The brig payed off, straightened to an even keel, and rolling slightly, more from uneven wind-pressure than from the action of the sea, charged down toward the nest of coral.

A quarter-mile away on all sides, sea and sky were merged in the cloud of spindrift that rose from the frothy sea; and beyond this was the reef. But he was a wise man, this Mr. Todd, and he had taken the bearings of the inlet while there was still time. He steered a compass-course, and soon distinguished the shadow, loftier outlines of the reef to starboard and port on the flat froth ahead of him, and knew that he was right. With a moment's time now to look around he saw, off on the starboard quarter, the pirate-ship, dimasted, broadside to the wind, and surely doomed. Then the smudge shut her out, and Mr. Todd steered on, with a grim smile on his face; for he was but human, and human beings lately triced up by the heels, hanged by the neck, and despoiled, are apt to forget the Golden Rule and its corollaries.

The little brig whizzed through the inlet into the water no calmer than the flat turmoil without, but lacking, in a measure, the overlying cloud of spume; and Mr. Todd saw, in a hurried look to starboard, the big brig close up to the reef, with cables, taut as iron bars, made fast to projections of coral. The sight decided him. The brig's commander would never have moored to the reef had he not distrusted the holding-ground beneath, and with a shout to Yank Tate to come aft, he shifted the wheel and steered roughly for the eastern inlet. Yank appeared.

"Never mind the anchors," shouted Mr. Todd, in his ear. "Rig a tarpaulin in the port main-rigging to help steer. I'm making for the east inlet."

Yank attended to this, and Mr. Todd soon picked up the opening to the south-east. To allow for leeway he steered a full point higher than the inlet's direction, and the staysail gave the little brig good headway, with the square of canvas aft to balance it. All might have gone well had not a gun boomed out aboard the large, armed brig hanging to the reef, and

a solid shot plunged into the mainmast six feet below the hounds. There was no sail on the mast except the tarpaulin in the rigging; but in that furious pressure of wind no mast weakened in this manner could stand. The topgallantmast was on deck, but the topmast and upper part of the lower mast sagged forward, slowly and steadily; lanyards stretched like rubber strings, then snapped, and down came the fabric amid the roars of Mr. Todd and Yank to "Lay aft, for your lives." It crashed on the lee rail, balanced a moment, and rolled overboard; then, held by the still intact mainstay, it drifted to the quarter—an embarrassing drag, which pulled the brig's head off before the wind.

The crew, though frightened, were unhurt. With axes and knives they slashed at rigging until the wreck was astern; then, they set a doubtful fore-spencer—an alleged storm-sail forward, corresponding to the spanker aft. But in spite of its age and weakness, it held together, and the brig sped toward the inlet, rushed through at ten knots, and squared away dead before the wind for at least a ten-hour scud; for there was no heaving-to with all after-sail gone. Mr. Todd plotted his track and when the wind moderated, rigged a jury mainmast and sail of his maintopgallant-gear, then with short head-sail, beat back to the atoll with two dominating speculations in his mind—as to whether his pearls were above water or below, and as to why he had been fired at—arriving three days later, by which time Yank's sore nose was healed and his spirits recovered.

They noted the white tent on the southern edge of the atoll as they skirted it, and well over to the eastward—as far as where the reef broke up into the maze of fragments through which ran the deep, east channel—were moving specks, men undoubtedly, who seemed to be waving caps. High and dry near the north inlet, unkempt and forlorn, was the junk-like hull of the pirate ship; but there was no sign of the large brig, within or without. They sailed around until abreast of the wreck; then, with mainyards backed, the brig drifted. Leaving Yank in charge, Mr. Todd lowered a boat and visited the wreck, confident that it was deserted.

He was right; it was not only empty of

living creatures, but stripped and gutted of everything inanimate that was movable. There was not even ballast in the hold; the cabin and forecabin were void of furniture and clothing. The sails and gear had, of course, gone with the masts, but guns and carriages, deck-blocks, pump-brakes, hand-spikes, belaying-pins, and all ropes, lines and running-gear, had been removed by the men. The dingy brown hull was a shell, and though he searched high and low, Mr. Todd found no trace of his pearls. He returned to his little brig with gloomy face.

"Bothered 'bout somethin' in yonder," said Yank, as he climbed the rail. "Makin' a big smoke." He pointed south, toward the thickened part of the atoll, where black smoke soared skyward.

"We'll go in," answered his chief, determinedly, after a look through the glass. "I am not yet sure of my duty, or of what is required of me; but they are evidently in trouble, perhaps hungry, and possibly open to terms."

They swung the yards and sailed in across the lagoon to within a hundred yards of the beach, where, after first satisfying himself that the shouting men on the strip of coral had no boats, Mr. Todd dropped anchor and sculled in with his dinghy, stopping at a safe distance.

"Come in," yelled a tall, black-eyed, sunburnt man with big mustache, who seemed to be the leader. "Come in. We're all right—only damned hungry and thirsty." Then the rest—hollow-eyed and gaunt—voiced the invitation in unmistakable sincerity. They were armed to the last man with long knives, and were dressed in red shirts and caps; but they were not the men who had boarded the brig.

"Who are you?" asked Mr. Todd. "Why are you here? You are armed; I am not, and have lately suffered from it. Explain who you are."

"Come in. We're all right. We're harmless. Here—look." The leader explained his long knife toward Mr. Todd.

It sank in two fathoms.

"Disarm—every man jack of you," he shouted, and a shower of knives fell around the boat.

"Now, come in. We're marooned to

starve—that's all that ails us. We belong to the brig that shot away your mainmast. Damned sorry—thought it was Chink. Had an old war with him, and never thought he'd let any one get away from him. So we let go at you."

"You mean," queried Mr. Todd, "that you fired on what you supposed to be a pirate crew who had first disposed of myself and men?"

"Yes. That's it. We knew his old tub. We knew Chink. And he never spared any one before. Thought he'd taken your brig for himself."

"And why are you here?"

"We came in to mend our rudder and had to stay through the blow. We got boats out, took Chink and his gang off the reef, just in time to save 'em alive, and afterward found his mainmast and towed it in here—over yonder, with the guns and dunnage—" the leader pointed up the beach. "We were going to help him refit, and stripped his craft to launch her; but he put up a job on us when our rudder was fixed—got all hands ashore here but my mate, then rushed for the boats, the lot of them, put off to the brig, killed the mate as we watched 'em, and went to sea. We're supposed to starve, while he gets away with my brig and your pearls. He told me about his haul, and I saw the bag."

Mr. Todd turned and hailed Yank, ordering him to strike out a barrel of bread and a cask of water. Then he sculled out to receive them, and when Yank had lowered them into the dinghy he invited him to come ashore.

"We have nothing to fear from these men," he said. "They are pirates beyond doubt—but pirates with a grievance equal to ours. Like us, they are instruments. We can aid each other."

Which partly explains Mr. Todd's later acquiescence to a questionable scheme propounded by Captain Swarth at a conference in one of the tents, the dominant reason being the enthusiastic approval of the single-minded Yank Tate. The scheme was, to temporarily change the missionary brig to a pirate brigantine by substituting Chink's mainmast with its still intact mainsail and gaff-topsail for the jury rig; and thus disguised, to sail in pursuit of

Chink, whom Captain Swarth vowed he could find, and to recover by law of might the brig and the pearls. Yank stipulated ghoulishly that, in return for his services as carpenter in masting the brig, he be allowed the privilege of prodding Chink along the plank when he walked it, and Mr. Todd stipulated that he be not involved in conflict or contact with either side, receiving his pearls merely for the loan of his brig. Captain Swarth promised; and Mr. Todd chided Yank on his bloodthirstiness.

"You are ever a backslider," he said, sternly. "What will be your future when you no longer have me to guide and advise you?"

"Don't know," answered Yank, calmly, as he bit off a chew of forbidden tobacco. "It's the least of my troubles; and this good-for-evil business don't always work. I gave him good—promised to pray for him, and he gave me evil—plugged me in the nose. An' then, you know, I'm an instrument."

Mr. Todd sighed and turned away, realizing that Yank's independence came only of a prospective berth with Captain Swarth, who had taken a strong fancy to him. He was certainly a valuable man to him. He was certainly a valuable man to any skipper. He dressed down and shortened the junk's mainmast to suitable dimensions for use in the brig and; finding a split in the lower end, he constructed a forge, and shrank an iron band or two around it; he invented a coral paint to whiten the black brig, of coral powder and boiled oil from Mr. Todd's paint-locker, fashioning the mill for pulverizing coral with two grindstones and a couple of pump-brakes. He was cheery, industrious and enthusiastic, loving work and his fellowmen—and limited only by his unseemly ambition to burn, sink and destroy.

Mr. Todd had a hold full of provisions intended for distribution and sale at the islands on his route; so there was no lack of food for these forty men, though the water-supply was low. A kitchen was set up on the shore, and the bewildered Kanakas impressed into the service of Swarth's cook; but they were of little use. There being no carpenter in the pirate crew, Yank was appointed foreman of construction; Mr. Todd and Captain Swarth be-

came consulting engineers; and the crew—rascals all, but white men and able seamen—were to carry on the work, which they did; first giving up their long knives.

Sheers rose on the brig's deck and the reduced mainmast was stepped; rigging was cut out and set up; the topmast was sent up and equipped; then some sailmaking was done, and the brig had become a brigantine—square-rigged forward and schooner-rigged aft. Through it all Yank Tate looked for orders less and less to Mr. Todd, and more and more to Captain Swarth, yet from no lack of respect for Mr. Todd's seamanship, which was of a quality that impressed even the pirate chief—a skilled specialist—to the point of asking how he, a mere missionary, had become so familiar with nautical technique. "Observation," answered Mr. Todd, "and 'a few voyages before the Lord called me.'"

"Um—humph. Sure you were called? Men like you are scarce aboard ship. Sure you were not called to the quarter-deck? I knew by the way you handled your craft in the typhoon that you were one in a hundred—in fact, I thought you were Chink—and he's a whole seaman. And yet, Chink got dismasted. Well, I want a mate and quartermaster. Square it with yourself, and the berth's yours at any time."

But Mr. Todd sadly and firmly declined. "I feel," he said, "that I am entitled to my little worldly store against the chances of old age, but not to begin a career of violence and revenge—though the world has used me badly, I admit."

"Suppose we can't recover your pearls?" But the missionary sighed, and refused to discuss it.

They took Chink's four carronades, even though the powder was wet, and cut ports in the bulwarks, against Mr. Todd's protest. It was done for its moral influence on the missionary, and Yank voted with Swarth. A few coats of white paint without, and bunks for forty men within, completed the little craft's disgrace, and she put to sea with Swarth in command, Yank Tate in his old berth—mate and carpenter—and her quondam commander, the earnest and forceful Mr. Todd, a quiescent and non-combative passenger.

Swarth headed for Pauna Lo Island, for water and traces of Chink, and obtained both. A wild-eyed man came off in the boat and told of his being marooned by Chink for a small disagreement, and of Chink's announced intention to ravage the China seas with his fine, new, ten-gun brig—"fit to thrash a man-of-war."

The man was shipped, and the brig sailed west, leaving behind six Kanaka deserters, who, no doubt, could live and die happily on this well-stocked, well-watered island. But Mr. Todd, on hearing this, gently announced a sad suspicion that Captain Swarth and the recreant Yank had compounded the desertion—which may, or may not, have been true. Yank was too supremely happy to deny anything criminal and disgraceful.

There were sure signs of Chink here and there in the China Sea—wreckage, drifting boats holding dead men, and an occasional smoldering and derelict hull; but they had cruised three months before early one morning, hove-to in a howling gale off the southern end of Formosa, they sighted a craft, hull-down in the west, which Swarth knew for his brig. She was on the starboard tack, under double-reefed topsails, spanker and foretopmast-staysail, and the wind being out of the east, lay almost directly to leeward.

"Our work is cut out," said Swarth to his men, when they had assembled at his call. "We'll run down flying a distress-signal to fool him, and we'll keep out of sight till we get there. Then—there's no turning back; for this craft can't lay alongside in this sea. We'll board our own brig and take her back. We've nothing but knives, but we know how to use them. No quarter, for you'll get none if you lose."

They yelled an approving response and flourished their knives. And Yank, having none, elevated his broad-ax—a murderous tool with ten inches of razor-like edge—and yelled the loudest.

Yards were squared, reefs taken out, and the little vessel was headed toward the brig, while a British ensign, union down, was fastened in the port main-rigging; then all but Swarth and a couple of men—all three in yellow oilskins—hid themselves behind the rail, sharpening their

knives as they waited. In two hours they could make out the huge figure of Chink on the brig's quarter, and shortly after were within hailing distance.

"Brig ahoy," roared Swarth, through a trumpet. "Brig ahoy."

"Wha' you want?" came back faintly, against the wind. "Keep off wi' dat craft in dis big sea."

"Brig ahoy," again called Swarth, as though not understanding Chink's answer. "I'm short o' grub and water. I'll heave-to to windward o' you and send a boat."

Chink sprang frantically to the top of the skylight, and waving to his helmsman to put the wheel up, sang out thundering orders to his men, plainly distinguishable, for the brigantine was nearly upon him.

It was too late. Swarth had gained the time he needed, and now putting his helm hard-down, rounded to alongside the brig—yards catching yards aloft, rigging snapping, and Chink's cosmopolitan crew rivaling their leader in blasphemous objurgation. Then the two vessels crashed together, and a dozen or so of Chink's men sprang over with their short cutlasses, ready to exterminate the lubberly visitors; but they did not return. Forty red-shirted men arose to receive them, and great was their surprise while it lasted; it was not a fight—merely a killing.

"Hurrah, lads," shouted Captain Swarth, as he sprang over the rail to his own craft. "Here are the men who left us to starve. Give it to 'em."

Yank among them with his broad-ax, they followed; and Mr. Todd, unarmed and dignified, brought up the rear. The little brigantine, with yards square and canvas aback, bumped her way astern and drifted away—a future derelict. Mr. Todd, near the main-rigging of the brig, saw her disappear, but had neither heart nor power to stop her, so new, and horrid, and paralyzing, was the sight before him—a hand-to-hand struggle with knives and cutlasses—the wickedest warfare that human beings ever indulged in. A few single-shot pistols exploded but were not reloaded. The shouting now was done by the mixed crew under Chink. Swarth's men—trained in sheath-knife fencing—saved their breath. Where one could close with his opponent, he had the ad-

vantage—a short preliminary wrestle, an opening, a sudden thrust, a man less.

But they could not always close, and those of Swarth's men who had seized cutlasses from the over-supply in the racks at the gun-stations did not need to; so, there was a nerve-racking jingle of steel added to the uproar, as men fenced for their lives. Forward near the fore-rigging, a huge negro of Chink's crew lay with a divided shoulder—a victim to Yank Tate's broad-ax; and as the fascinated missionary watched he saw the handle of this broad-ax rise and fall—coming down on heads and blades as a club.

But it became apparent to Mr. Todd that in this furious mêlée, length of steel was telling; there were more red-shirted men prone upon the deck than there were of the others. Yank had become the center of an inclosing circle of flourishing steel, which he was keeping at a proper radius; and on the poop-deck Captain Swarth was engaged with Chink, and holding his own; nevertheless, it was plain that the defenders of the brig were winning. As the missionary looked, Swarth slipped and fell; before he recovered himself Chink had sunk his blade into his shoulder, and sprang to the main deck to join his men. Then it was that the Rev. Mr. Todd took action.

Selecting a capstan-bar from the rack near him, he whirled it over his head and walked briskly into the fray, his long clerical coat-tails flapping with his motion. His eyes sparkled in his somber face; his lips were parted and drawn tightly over his gleaming teeth; he growled incoherently; he was not pleasant to look upon nor was he pleasant to meet. A man faced him, and fell—with a crushed head; then another and another. There was no standing before this tall, muscular terror, who whirled, and twisted, and flourished that six-foot club with quicker motion than they could give to their cutlasses. They fell back and left him a path, but he turned upon them. The circle around Yank melted away, and men sprang to meet the new enemy—but only to fall when they reached him. Swarth's crew took heart and fought harder, while Chink, whom Mr. Todd was plainly trying to find, called his followers around him at

the forward door of the cabin and bade them defend it. Then the pirate entered the cabin and returned with the canvas ditty-bag.

"Here," he called, as he held it up. "Here, you humble follower of de meek an' lowly. Dis what you want? Take it, an' call off your dogs."

"Throw it to me," yelled the frenzied missionary. "Throw it to me."

"Stop fightin', and make terms. We're not beat yet." And Mr. Todd essayed to oblige him; but the furious men beside him, with their leader fallen, would not desist. They pressed harder upon the little band at the cabin-door. Then the bag was thrown—overboard.

Mr. Todd became a homicidal maniac. He yelled and shrieked, struck and prodded, killing three of ten men surrounding Chink before he met the chieftainface to face. Then these two fought—the one with cutlass, the other with that terrible white-ash capstan-bar. There were fifteen of Swarth's men beside him when that duel began, and of these five fell before the last of Chink's followers stretched out in death. The survivors turned, to end the single combat raging along the deck from mainmast to foremast; but they found that in this fight there was no room for their short knives. Early in the fray, Chink's cutlass had gone in pieces, and he had fled to the mainmast, there to arm himself equally. And now, around the deck, forward and aft, to starboard and port, the two men were contesting, with their ponderous weapons, in a fight which in the nature of things could have but one survivor. The giant mulatto, silent and impassive, whirled his club and retreated; the equally tall, but thinner, wirier and quicker-motioned missionary, yelling and exclaiming insanelly, pressed him hard—striving to bring the six-foot club down on the woolly head dodging before him. The red-shirted victors formed a circle about them, but not one cared to enter within the sweep of those capstan-bars, which, when they met, rebounded with greater force than is usually given a blacksmith's sledge. The combatants stepped over the dead and living bodies, and upon them; they stooped, endeavoring to lunge; they sprang in the air, and to the right

and to the left; they fenced—and their fencing came of no skill acquired by tutelage but of instincts derived from the Age of Stone, when clubs were the only weapons, and victory the only prize of combat—and at last Chink stumbled on the outstretched arm of a dead man, and the coincident sweep of his club lost its initial direction, just enough to admit the descending bludgeon of the missionary to strike a glancing blow on his head. He fell, but his head was not injured; it was his crushed shoulder which brought an agonized howl from his throat, and the fight to an end. He dropped his weapon and sat upon the deck.

"Bind him hand and foot," ordered Mr. Todd, panting hard, but self-contained now. "Bind him tight. I made him a promise once." The men obeyed him.

Chink's evil face, as they fastened his wrists and ankles, was a composite of all unworthy emotions; yet he made no sound until Mr. Todd ordered the main-staysail halyards overhauled to the deck and a hangman's noose made in the end of the fall. Then he protested, in a loud, wailing tone.

"You won't do dat. Oh, Mister Todd, you won't do dat. I gib you pearls. I gib you money to make up. Don't hang me."

"Hush," answered the missionary, sternly, as they slipped the noose around his neck and drew it tight. "You marked yourself for the vengeance of God when you tortured and robbed a man who had not harmed you, but had the courage to follow you. I warned you. Up with him, men," he called; "hook the bight in the stanchion-sheave and bowse him up."

The howling mulatto was lifted upright, his cries troubling the air until the noose stifled them; then, amid the pitiless laughter and shouting of his executioners, he went aloft to the halyard-block, to squirm and strangle until death came to him. As he left the deck Mr. Todd bowed his head and lowered his eyes, remaining in this attitude until the rope was belayed; but in this the single-minded Yank Tate took no part.

Mr. Todd, hardly hearing the congratulations of the men left standing, climbed the poop-steps and looked for his brigantine. She was out of sight, behind the

blank wall of spindrift raised by the storm. He looked vacantly at the red-shirted man at the wheel, who, shouting jubilantly, was pushing his predecessor's body out of his way with his feet; he looked up to the heavens and groaned hoarsely, and raising his arms high above his head, brought them slowly down with a sweeping motion that might have meant renunciation of heaven or defiance of hell. His eye fell upon Captain Swarth, who was beckoning, and weakly trying to make himself heard. He went to him, bound his wound roughly, placed a coil of rope under his head, talked with him for a moment, then went forward. Yank Tate sat upon the deck beside his victim, the big negro. He had placed his knee beneath the woolly head for a pillow; he was holding a tin pot of water to the thick lips of the dying man, and explaining, while tears welled in his honest, brown eyes.

"Couldn't help it, old man," he was saying, as Mr. Todd stopped before him. "An' I couldn't do it again, Lord in heaven! No—never again. I can use a club, but not an ax—never again. You're the only one, old man, and I'm damned sorry."

The glazing eyes brightened a moment, then dulled, and the huge, black head rolled to one side. The negro was dead. Yank stood up, and looked into the drawn face of Mr. Todd through his tears.

"Yank Tate," said the missionary, in a strained voice. "You left my service against my wishes and engaged with Captain Swarth, refusing to take orders from me. You will take them now; I am your superior officer. My life is wasted, my vessel is lost, and my wealth is in the sea. From the sea will I recover it. Captain Swarth is seriously, though not fatally injured, and I have engaged with him as mate and quartermaster. May the Lord have mercy on our two souls, Yank, on yours in particular, if you ever cross me again. Clear up the decks and throw these carrion overboard."

"Aye, aye, sir," answered the astounded carpenter.

Mr. Todd went aft, and Yank wiped his eyes.

"And he called me a backslider," he muttered.

SUCCESSFUL PERSONALITIES SKETCHED FROM REAL LIFE.

BY JOHN HOLMS.

I PROPOSE to write the story of two boys—brothers: for the benefit of all other boys, whether brothers or not, who may chance to read this story. There is nothing very remarkable, nothing startling, nothing so very unusual, to chronicle; and this is one of the strongest reasons for writing. We have fallen upon times in which sentiment, possibly public sentiment, regards life as scarcely worth living unless it is so strenuous as to be perpetually attracting attention; while too many persons are only too frequently declaiming about the loss of opportunity to "the average man," asserting that most of the oldtime avenues to recognition and to promotion are closed, or at least are barred with gates whose locks respond only to golden keys. For thirty years I have been in a position to learn the truth or falsity of these propositions—if these may be dignified by this title—and I have come into such absolute and entire confidence that they are untrue that I am solicitous that others should share this confidence. It is especially to be desired that young men, those whose future is still before them, should see this matter in its true light; that those who are just coming out of port and are beginning the long and not always pleasant or safe voyage that we call life, should get their correct bearings. A man is exceptionally dull and stupid who does not both value and desire appreciation; and he assumes a grave responsibility who confidently assures a young man that he will in all probability fail to receive this. It is difficult to conceive that any human being will or can push on and up in this world if he is without hope of betterment, without hope of his fair share of those things which a bread-winner, a father, an American citizen, may reasonably desire; and it is a terrible mistake to destroy utterly this hope. Divine love, divine grace and forgiveness, may cover a multitude of sins, but it is exceedingly doubtful if the sin of pessimism is one of this number. For the people who are ever and by choice in the

shadow, and who never walk on the sunny side of the street, there is but little pity. They ought to be left to their own devices, but they ought to be compelled to let other people alone.

It is not to be understood that this true story is written to present to young men two models to be closely imitated. Those of whom I write have not always been wise, and it is more than probable that they have not always done that which is right. They have shown themselves very human: this I most freely admit, though I love them both as though they were my own sons. Their story will be told without comment. It must be its own commentator. All the facts are within my own personal knowledge. Names are omitted, and the sketch is made as impersonal as possible, for very obvious reasons.

The elder of the two has but just reached his fortieth year, and the younger is thirty-eight; so the probabilities are in favor of still further advancement. There is such a thing as momentum in individual lives—and these men are daily gaining in strength. They are not rich—I am not sure that they care to be. They have never held office—I am quite sure they do not particularly desire political preferment. So far as their most intimate friends know, they have no special "ambition" which is wasting their energies and eating out their hearts. They are simply excellent examples of what most young men in this country may become by honesty, diligence, faithfulness and pluck—that is all, and that is quite enough.

I first knew these men when they were boys, twenty-two years ago, in a small town in a Western state. One was eighteen years of age, the other sixteen. They were the only sons of their mother, and she was a widow. Her husband had died, in New England, some years before; leaving her alone, with little money and in poor health. She went West because she had a sister living in that part of the country, and because "there was nothing else to do." Of the almost desperate struggle for

existence during the earlier years of that Western life it is not necessary to say more, here and now, than that she never became dependent, never for a moment gave up the battle, and never took her boys out of the public schools while these were in session. I recall her as one of the bravest and sweetest examples of the American common people—that most uncommon common people, by the way, that the world has ever known. These boys were poor from the start, as to worldly possessions, but they had a rich inheritance in that mother.

On the morning that I faced the first college class that I ever taught, the younger brother sat in the front line of seats. It was in one of those state universities so well known in the West—those institutions of higher learning which offer the last four years or grades of a state system of free, public education; institutions the work of which is to unite and not to divide society; whose opportunities are so highly prized because in these days this higher learning is a necessity to the poor—even though it may still be considered, possibly, a luxury to the rich. This boy could never have gone beyond the high school had it not been for this wise and generous provision on the part of the state for all its children. Indeed, it is doubtful if he would have gone even through the high school but for the constant incentive which the possibility of a university course placed before him. He is an excellent illustration of the power and efficiency of this *system* of education—not yet half appreciated, even by those who have participated in its benefits; this close articulation of all parts of this generous scheme for the betterment of the state by the intellectual betterment of its citizenry.

A few weeks later, I chanced to meet the elder brother. He was then, and is now, suffering certain physical limitations which give him a halting gait, and which would have been a heavy burden for one less stout-hearted than himself. In all the years that have passed, I have never known him to make the slightest reference—even the most indirect reference—to this trouble, nor has he ever hesitated or flinched because of it. There is a vast deal of courage and grit in this country

outside of the Grand Army of the Republic and outside the ranks of the men who fought so nobly at Santiago and Manila.

This elder brother had (naturally and necessarily) carried the large end of the family load, as between the two boys, since either of them was old enough to lift at all. But in his great heart, then and always overflowing with generous emotions, he had early determined to give his brother the "long end of the evenner," and as far as lay within his power to see that the brother had "the chances," whatever these might be. He was then doing roustabout work on a small daily paper—a position he had won and was holding by most severe and continuous effort. His salary had already been twice advanced, and was then the munificent sum of six dollars a week—night-work at that!

Early in that first winter, this elder brother met me on the street. In a sudden burst of confidence, and in a frank and manly way which at once won my heart, he told me of his hopes and fears, his anxiety for his mother, his ambitions for his brother; of all that he himself was struggling to accomplish, for others rather than for himself. From that hour until the last time I met him—a few months ago, when I dined with him at one of the most magnificent hotels in the city of New York, and saw him surrounded by men of fame and station in the business world, sought and respected as a wise and trusted counselor in affairs of great moment—there has been no break in our friendship, nor has he ever forfeited my esteem.

Early in the spring I secured for him a position as accountant and all-around office man at the University, with an advance in his wages and with the privilege of attending two lectures or classes each day; a position which he filled most acceptably and opportunities which he improved most faithfully, for two years. Then a general passenger agent of an important Western railway took him as private secretary. In this capacity he soon showed extraordinary aptitude in many directions, was continually overflowing his position, never asked about "hours" or "pay," made the interests of his employer his own, anticipated instructions as far as this could be done safely, and gave his

whole mind and heart and strength to his work. There never was, there never can be, a better illustration of the fact that all at it and all the time at it is sure to win; that it is both wise and necessary to mix perspiration with aspiration; that the good things of this life never of themselves come to the young man who simply stands at the foot of the ladder with his mouth open—longing; that an employee who will take pains to make himself and his services indispensable to his employer, holds the whip-hand—and that it is wholly unnecessary for him to lay on the lash.

Meanwhile, the younger brother had made a record for himself at the University. The success of the elder did not relieve the younger from the necessity of labor. He "pumped" the organ on Sunday in one of the most influential churches in the city. He rose before daylight and carried a newspaper route—often with positive physical suffering and danger in winter. Once in later years, when asked why as an attorney he had so strenuously defended a woman who could not repay him, he said, "I have not forgotten that she lived at the end of my old paper route, and that more than once in winter her kind heart prompted her to rise very early and have a cup of hot coffee ready for me, fearing that I might perish with the cold." On Saturdays he collected his route, solicited advertising, worked at home, did odd jobs for the neighbors, occasionally wrote some special articles for his paper; and in every way and in all ways pieced out the family income. Worn by the earlier struggles, the mother could neither endure nor accomplish as much as in other years, and so the expenses at home were increased by the need for a maid, for a better table, and for more physical comforts—for the mother's sake; and to gratify her and to save her both boys wrought mightily.

But the younger found time and strength for his University work also; and his heart warmed and his horizon broadened and his insight grew keener and his perceptions quickened into new life. It was all very inspiring to him, this close touch with all that had been and still was great and good and helpful in the world; this constant association with the best men at their best—commonly called books; this close com-

panionship with thoughtful, earnest, large-brained and unselfish instructors. Fortunately he did not fall into the only too prevalent error of the average collegian, that of considering the faculty as his natural and inevitable and hereditary enemies, determined if possible deftly to secrete about his person some small packages of learning, which he in turn is just as determined not to carry from the college if he can possibly and safely unload before his final commencement-day. And so he daily grew in scholarship and in manliness and in grace and favor. What was the effect of all this labor, and how deep and strong became his final love for learning, may be inferred from a passage in his last public address—a noble oration on good citizenship, delivered only a few months since, on the commencement platform of one of our most notable universities:—

"I have *not* had to 'unlearn' what I learned at college. I can remember just where I was and what objects were about me when I read the concluding passages of Plato's 'Apology.' I can remember as distinctly as if it were yesterday how toward the end I was able to abandon the lexicon and leap from boulder to boulder, from noble sentence to noble sentence, as by some newly given instinct and power, without aid or staff. 'Wherefore, O Judges, be of good cheer about death, and know this of a truth—that no evil can happen to a good man, either in life or after death; he and his are not neglected by the gods; nor has my approaching end happened by chance.' I remember how the last words rang in my ears: 'The hour of departure has arrived, and we go our ways'; and I remember every detail of the soft May Saturday morning which looked in through the window upon me as I closed the book.

"When since then do you imagine I have had a keener intimation of reality, a clearer insight into what constitutes life—when have I had an hour more vital and glorious than that?"

Already the investment made by the state, by the public, by public taxation, in this young man, had become income-bearing! Great thoughts are of more value than great cities, and lofty ideals tower far above the sky-scrapers of modern architecture!

After graduation he was made a tutor in Greek, and for two years, while working for his master's degree, continued with us, well beloved by both teachers and taught.

Having chosen the law as his profession, he went to Columbia University, in the city of New York, in order that he might not only secure competent instruction and unusual advantages, but that he might come in contact with the systematized activities of a great city. Those who still clamor for what they call the safe seclusion of the rural village for a college and for collegians, evidently forget that modern education has come out of the cloister, has thrown aside both cap and gown, and stands in its shirtsleeves in the most busy mart, anxious to learn more of life, and to help all to get the truest life, and to get it more abundantly. There is great stimulus and inspiration in the well-ordered and masterful existence of a metropolis for any lad who keeps himself open to all good influences and who is willing and anxious to grow. To the contrary-minded there is safety nowhere, because he is perpetually in the demoralizing and degenerating company of himself.

Meanwhile, the elder brother had become the editor of all advertising matter for the railroad with which he was connected; and had originated the dainty illustrated pamphlets, with text of more than usual literary merit, now so very common in this line. For two years he was the managing editor of a large and influential daily paper, practically owned by a gentleman who was both an admirer and a friend. Note—that this was not a family friend, there was nothing of the past in this admiration, the friendship was not due to conditions over which this young man had no control, he had not been born to it. It was the friendship of an older man for a younger man, compelled by sheer merit, by strong personal characteristics, by service of unusual value. The young man had won his spurs by hard fighting in the thickest dust of the arena. I have known him to work eighteen hours a day, a month at a time. When it was necessary, not infrequently, he would work all night, bathe his eyes at daylight, and push right along as if this were an every-day occurrence. He would have delighted Edison—

for he never looked at the clock. Yet for all that he was simply an every-day sort of fellow: plus industry, plus energy, plus tireless brain, plus indomitable spirit—qualities that are capable of some development, at least, in even the weakest of us.

These two brothers had a very definite plan. They early determined upon their pattern, and then worked to it and by it. They did not drift, they were no loiterers in the hungry land of dreams, they were not waiting for something to turn up, they spent no time in wondering how they could secure assistance from somebody, they were not always looking for a place, and especially they were not looking for a "soft place." They asked no favors, but they granted favors whenever and wherever they could—and were perpetually strengthening themselves that they might be able to grant more. If any young man is looking for a game in which he desires to be sure to win out, let him learn this one.

Their thought was to form a law partnership as soon as both could be admitted to the bar. So while the younger brother toiled at his books and gained strength by associating with men at Columbia—rooming over a milk station near the Grand Central Station, and adding to his mental effort physical labor before daylight, with the returns of which he pieced out the scanty resources he had managed to save while acting as tutor for his alma mater; and later doing all manner of work in the office of an attorney who had been attracted by him and to him—the elder attached himself as confidential clerk to the general solicitor of one of the most extensive Western railroads; and read law while he carried the entire burden of his mother's care. Three years later, when the younger was but twenty-six years old, the partnership was formed—and still exists.

It was not long after this that both brothers married. I refer to this briefly, to correct any impressions that may possibly arise later that their present good fortune and commanding position have been acquired or at least strengthened by these unions: in other words, that they "married into" something. The elder married a graduate in music whose diploma he had himself signed as Regent at the Univer-

sity, and who brought him only the great dower of her ability, good sense, undaunted courage and serenity of temper. The younger married one equally lacking in this world's goods, but alike richly endowed in mind and heart. Neither of these four was looking for any greater gain than the doubling of every joy and the halving of every sorrow. Each one of the four most sincerely accepted the golden truth that he who founds a line is at least quite as honored and as honorable as he who simply heirs one.

Five or six years ago a cluster of railroads forming one of the greatest Western systems went into bankruptcy. Thousands of security-holders in all parts of the world were thrown into consternation. From all the great money centers came financial experts, each representing millions of the discredited securities and each seconded by the ablest legal adviser obtainable. For two years or more these men, wise and experienced in law and finance, struggled day and night to adjust the stupendous difficulties before them. Through all this struggle few men played a more conspicuous part than the elder brother of whom I am writing. His information about the thousands of miles of road in the system was full and accurate, his knowledge of the laws and lawmakers which had to be considered was complete, his financial instinct was unerring; and though always independent and courageous in his contentions, his almost unflinching correctness of position, his frankness, his evenness of temper and his all-round fairness, caused him to be respected by all and followed by most. He is now the skilled and highly accredited director of railroad companies owning over ten thousand miles of track. Besides, he is the chief owner and managing director of one of the brightest, cleanest and most admirable daily papers in the country—a paper second only in size and importance to the very largest in New York and Chicago. He is also a director of two national banks, several street-railway and land companies, and of various other important corporations.

Whether at his desk in his Western law office, or in the council chambers of the great corporations, or as guardian of the

interests of great educational institutions or in the columns of his newspaper, or in the pages of the leading magazines, or on the lecture platform or political stump, his opinions are sought and respected by those of the highest class in the highest walks of life.

I heard the younger brother deliver the commencement oration from which quotation was made earlier in this story. In a simple and unaffected manner, yet with evident sincerity of conviction, and with profound earnestness, clothing his thoughts in charming English—he held a vast assembly of cultured men and women for more than an hour. They were delighted and warmed and captivated—as frequent and hearty applause, most intense and eager silence, and not infrequent tears, clearly proved. One of the most noted divines of this country, himself speaking through the printed page to thousands of Englishmen and Americans, declared this to be the best commencement address he had ever heard; read it to his congregation on the following Sunday evening, and secured several hundred copies for private circulation. As I listened to this noble effort and heard this well-earned praise, and recalled the remark of a mutual friend in his home city—"The Supreme bench of the state whenever he is willing, and of the United States when he is fifty"—I thanked God for a country in which there is still right of way and the right of every man to determine which way, in which all avenues are still open to that promotion and recognition which surely follows the ability to render competent and expert service to individuals needing and desiring the same, combined with a willingness to render large and generous service to the commonwealth.

My story closes as abruptly as it began. I make no prophecies, draw no conclusions, point out no moral. I hope what has been written here may bring new courage to the heart of some young fellow who may be in doubt and perplexity as to his future. If he turns squarely about, and bravely faces this unknown with the "I will it" of a born autocrat, then I am more than repaid—and as long as he is under the flag he may be assured of success.



WRECKAGE NEAR THE BEACH.

THE GALVESTON TRAGEDY.

BY JOHN FAY.

ON the evening of Friday, September 7th, Galveston was serene, picturesque and charming. The famous beach of glistening white sand, packed as hard as asphalt, which fringed the saffron waters of the gulf, was alive with merrymakers. The soft note of music came pleasing to the ear. Beneath the palms of Broadway men and women in tropic attire chatted and sauntered. Cottage balconies held thousands eager to catch the soft gulf breeze. Troops of shouting children reveled in the waters that laved the sand.

It was the last night on earth for more than five thousand souls. Between noon on Saturday and midnight, one-seventh of the city's population was exterminated. Suffocated in angry waters or crushed by crumbling walls, they went to their death. An area equal to one-third of the territory covered by the city was swept clean, the wreckage piled up twelve hundred feet back from the building-line on the beach, paralleling the water for four miles. Streets and landmarks were effaced. Men who attempted two days later to find the sites of their homes,

became confused in the sand. The property loss is still a matter of speculation—of speculation in millions. The whole island was submerged. The gulf and the bay, pushed from their beds, rushed through the streets with a hurricane accompaniment, and struggled for possession. The depth of water ranged from four feet in the higher places to fifteen feet on the lower level. Under normal conditions this city of thirty-eight thousand is but five feet above the sea-level. There is little tide. As one approaches from the sea, the city appears springing from the bosom of the water. Land is not in sight. Like a floating spectacle of fairyland Galveston greets the eye. Not until the harbor is entered is the long tongue of sand back of the jetties, the treacherous site of the city, discernible.

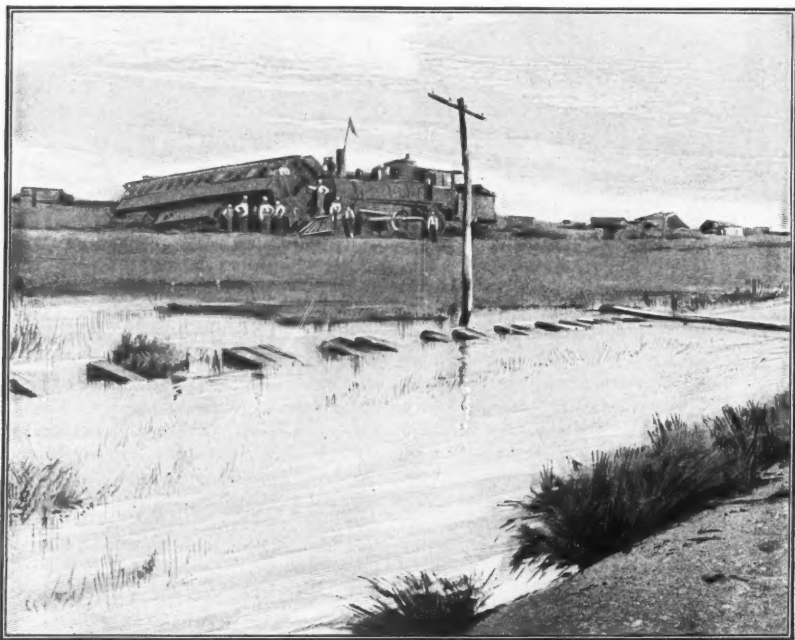
Galveston Island is a sandbar twenty-five miles in length east and west, and varying from one to two miles in width. It was settled in 1847, and tradition has it that prior title was vested in the person of pirate Lafitte. There he fled with his buccaneers and the plunder of the Spanish

main, and held possession until encroaching civilization made the pirate business unhealthy and hazardous.

There are no cellars in Galveston. One cannot dig four feet without striking water. Toward the western extremity the island approaches within a few miles of the mainland. Here the city grappled the permanent shore with three low bridges constructed on piling. The water to the north of the island is Galveston Bay. To the south is the wide expanse of the Mexican Gulf. At the far eastern end,

the United States. The deep-water channel on which the government has expended six and a half millions of dollars comes in on the bay side. The nearest mainland to the city is the site of Texas City, eight miles northwest across the bay.

Galveston covers the shifting sands from bay to gulf for four miles. The business district is on the bay side. The residences are on the gulf and along the central avenues. At this point the island is but a trifle more than a mile wide. The streets run at right angles, those from bay



ON THE WAY TO GALVESTON.

almost overhanging the point where the waters of the gulf and bay mingle, is the city. Why a city should thrive and develop on a low sandbar eight miles from the nearest mainland, at the mercy of the tropic winds and waves, may be puzzling, but Galveston stands as an example of man's combat with nature.

Even before the government began the work which made Galveston an ocean port, the city was thriving. Last year it was the fourth wealthiest city, per capita, in

to gulf being numbered, and from east to west alphabetically lettered.

The storm came over the bay from the north before daylight Saturday morning. At 4 A.M. there was a heavy rain and the wind was blowing steadily about thirty miles an hour. When dawn came, the sky was overcast with surging clouds, and the velocity of the wind was increasing. The waters of the bay began to bank up at the wharves. At 10 A.M. the inundation from the bay began. Even then no



IN THE HARBOR.

alarm was felt. The wind took on new strength, and the waters were carried four blocks through the business section into Market Street. Ocean freighters dragged anchors in the channel, and were sent crashing against the wharves. The wind soon reached the hurricane stage, and buildings began to crumble. First the copings would go, then sections of roofs and walls. By this time the bay water

had reached the highest point on Tremont Street. The gulf was yet quiescent. Then a remarkable thing happened. The wind suddenly shifted from the north to the southeast. There was no lull, no breathing-spell, during this movement. The hurricane increased in fury, and picking up the waters of the gulf hurled them with crushing force against the four miles of residences along the beach. There was



AT EIGHTEENTH AND N STREETS.

AT FOURTEENTH AND $N\frac{1}{2}$ STREETS.

no sea-wall, nothing in the way of protection, and houses were knocked over like so many card structures. The great loss of life was due to the belief which prevailed that the storm would subside before the waters reached a dangerous elevation. People decided to cling to their homes. Had they fled to the business district when the waters of the gulf began the first mad rush across the bay, many would have been saved. When thousands attempted it later, they lost their lives in the effort.

At three o'clock the gulf had spread over the city and mingled in the streets with the waters of the bay. The violence of the wind continued. Higher and higher rose the water. Cottages began to collapse, and shrieks of agony from women in death-struggles were heard. 'Twas then that many families abandoned their homes for more substantial buildings. One family of five took refuge in four different houses, abandoning each in turn just in time to save itself. Death was busy in the streets during this period. The

water was four feet deep, and a shower of deadly timbers, carried on the wings of the wind, was falling. Hundreds struck by the flying wreckage fell unconscious in the water. When night settled down upon the city, the whole beach side was in process of destruction. Wreckage was thrown with the force of a catapult against houses which still offered resistance. The electric-light and gas plants were flooded, and the city was in darkness. The last record of the anemometer in the weather bureau registered the velocity of the wind at eighty-four miles an hour. Then the instrument was blown away.

Westward on the beach stood the Catholic Orphan Asylum, a long, old-fashioned building, the home of one hundred children and fifteen Sisters of Charity. The structure was exposed to the full fury of the elements. Between seven and eight o'clock, the building went down, and all but two children perished. Two boys of seven years seized some wreckage and were driven across the island, where they were found Sunday in the sands near the bay. The body of one heroic Sister was found eight miles away at Virginia Point, with



AT TREMONT STREET AND AVENUE P.

the bodies of six of her charges tied together and attached to her with a rope. The Orphanage tragedy was one of the most deplorable of that dreadful night. The Ursuline Convent, a substantial brick building five blocks back from the beach, was a haven for all the people in the neighborhood. The Sisters dragged many out of the tumbling waters, using poles and ropes to rescue the drowning. When the flood subsided, there were one thousand persons who were saved by the convent walls.

Far down the beach at Fort Crockett, twenty-seven members of Battery O, First

take refuge in a small steel room beneath the gun-carriage. He watched the man depart and in five minutes saw him knocked off his feet and drowned. The captain stripped to his shirt and trousers, and, half swimming and wading, reached his home. He sent a warning word to the barracks, and with his family abandoned his house and began the return journey to the gun. He had supplied himself with an improvised raft, on which he placed the children with their backs to the strangling spray. The women never flinched, and soon all reached the gun in safety. If the trembling foundation gave



AN OCEAN STEAMSHIP LIFTED UPON A WHARF.

Artillery U. S. A., Capt. W. C. Rafferty commanding, met death. The battery had been divided. Half the men were at Fort San Jacinto, near the entrance to the harbor. The rest were in the barracks back of Fort Crockett. At 2 p. m. Captain Rafferty with a detail was examining the condition of the big ten-inch gun which commands the gulf. The waters were bombarding the works with much of the effectiveness of shot and shell. The captain became alarmed, and ordered a man to bring Mrs. Rafferty, the children, and a servant, to the gun. He had decided to

way, or the gun collapsed, it meant death. The room below was low and without ventilation. Huge waves pounded and broke over the works. The steel door of the room was dashed in, the servant-girl struck by a wave and carried out to her death before a hand could save her. For hours the family were imprisoned with a deluge roaring over and around them. In the end, the soldier's judgment proved correct. The gun triumphed over wind and sea.

In the barracks the big, bronzed artillerymen made hasty preparations to leave. When the captain's message came, Senior



ON MAIN STREET.

Sergeant George called the men to attention and said: "Boys, it is every man for himself. This building won't stand half an hour. I am going to get out." Instantly a division of opinion developed. Many decided to remain in the barracks. Others decided to go to the Denver Resurvey school building, a short distance away. About thirty started for the school-house, swimming and wading. Three were lost on the way, carried with millrace velocity down the island and into the bay. The others reached the school. Of the men who remained in the barracks, seven were lost; five escaped, clinging to wreckage. Two hours after the men took possession of the school building, the water was five feet deep on the first floor. Then one of the walls fell and killed three men. The question of abandoning the building came up. Sixteen men declared they preferred to take their chances in the water rather than remain and be crushed. Eight decided to stick to the building. The sixteen had no plan except to leave and proceed to the nearest buildings. Wreckage was floating about and in some places they could walk but for a moment. Just one of the sixteen escaped. The current swept

fifteen across the island into the bay, and Tuesday their bodies were buried at Virginia Point. The man who was saved floated on a section of roof to Virginia Point. He was carried two miles inland, and there exchanged his raft for a telegraph-pole, to which he clung until the waters receded. The men who remained in the school building were saved. No portion of the structure fell except the wall which drove the fifteen to their death.

An incident bordering on the marvelous is told by Captain Rafferty. A soldier on detail at Bolivar Point, near the harbor entrance, was carried forty miles on wreckage and tossed up on the mainland at Cedar Bayou. He was found by fishermen and brought back to his quarters on Tuesday.

While we are on the marvelous, the case of the boy Rutter is apropos. He lost his father and mother, brother and sister. When the house collapsed he found himself in the water near a trunk. He seized it and hung on until he landed at Hitchcock, twenty miles from Galveston, the next morning.

A butcher named Meyer was met by Father Kirwin Monday morning trudging in from the west. He told the priest he

was carried out in the gulf Saturday night, floated on a raft all night, all Sunday and Sunday night, and just landed that morning at seven o'clock.

"The most remarkable incident that came to me was from an honest fellow, a member of my parish," said the priest. "He lost his wife and child and was floating along, half dazed, on a raft, when he saw two children struggling in the water. He seized them and found that their combined weight threatened to sink his raft. He jumped off, and pushed the raft against a stable which had lodged against a telegraph-pole. He placed the children in the wet hay in the upper part of the stable, and going out on his raft, fell asleep. When he awoke, he found himself on the dry street, and forgetting all about the children came uptown. The next day he remembered the little ones and returning to the stable found them crying. They were his sister's children."

Between nine and ten o'clock on Saturday night the water reached its maximum height. A score of cool-headed witnesses assert that it rose eighteen inches in twenty minutes. The beach wreckage, hurled



A LOAD OF DEAD BODIES ON TREMONT STREET.

inland in great piles, proved a barrier to much of the destructive force of the waters.

The wind, which is believed to have attained a velocity of more than one hundred miles an hour, carried off roofs, crushed buildings already weakened by water, leveled poles and wires, and drove the rain almost horizontally and with shot-like effect.

Galveston homes are constructed for



RUINS OF FORT CROCKETT.

comfort and not on solid lines. Cedar posts, brick columns, and brick foundations imbedded a few feet in the sand, are the usual substructure. When the waters rose above the foundations, the houses, driven by the wind and waves, floated off and collapsed. West of Thirty-fifth Street, clear across the island, the waters made a clean sweep. The cemetery is in that vicinity. The dead of years were washed from their graves and carried across to the mainland. A metallic casket weighing two hundred pounds was found at Virginia Point. No one attempts to explain how it was lifted out of the cemetery, and driven over seven miles of

submerged island and two miles of bay. It was there, however, and examined by many persons. Scarcely less astonishing were the gyrations of the huge Huntington dredge. It was driven out of the harbor across the bay to Texas City, over the mainland for a mile, and now rests

quietly in the tall grass beside the Southern Pacific Railway. A tramp steamer was carried over to Virginia Point, then sent like a shot through all three bridges. Sections of the two railroad bridges and one wagon bridge were cut out so cleanly that men interested in naval architecture are amazed at the resistance of the sea-tramp's hull. The steamers "Alamo" and "Red Cross" were dropped upon Pelican Flats, and when the waves retreated they were high and dry in the sand. The English steamer "Kendal Castle" was carried over to the mainland at Texas City, and there she lies in one foot of

water. The "Gylla" was sent toward Virginia Point and stranded. Yachts and sailboats were driven over the mainland and could be seen in the grass far beyond Texas City. Railroad cars, loaded and empty, were carried into the bay, and miles of track torn up and washed away. At 9:30 p.m. the water was four and a half feet deep in the office of the Tremont House. The dome had been carried away, and the one thousand or more persons crowding the floors expected every moment to go down with the building. Many were drowned trying to reach the hotel. Wives under the escort of husbands walked in water shoulder-deep only to be swept

from the sidewalks to the deeper water in the street and drowned.

Between ten and eleven, the wind fell and the water rapidly receded. Before daylight the streets were clear of water, but covered with a slime from the sea and choked with wreckage. On that Sunday morning



AT TWENTY-SECOND STREET AND THE STRAND.

the people did not realize the full proportions of the horror. It was not until men came in from the beach and the west end, bringing news of the almost total destruction of that portion of the city, and of the heaps of dead in the streets, that full realization began to dawn upon them. It was not necessary to go to the beach to find the dead. They were thick along the business streets.

Mayor Jones, Chief of Police Ketcham, John Sealy, and other citizens, called a meeting to discuss removal of the dead and succor for the living. An appeal was sent to Washington, and General McKibben of



WRECKS OFF THE WHARVES.

the Department of Texas received orders to send one thousand tents and ten thousand rations to the stricken city. It was believed at that time that perhaps one thousand lives had been lost. A committee of public safety was organized, and all men, white and black, were asked to assist in the removal of the dead. The superstitious negroes refused. A local military company was called out, armed, and placed under the command of the Chief of Police. Negroes were impressed wherever found, and compelled, at the muzzle of a Winchester, to gather in the bodies. Father Kirwin was one of the first to discover it would be impossible to bury the dead on land. Hughes, a longshoreman, suggested barges and burials at sea. Society men, clubmen, millionaires, longshoremen and negroes took up the work, loading the bodies on drays and conveying them to the barges. There was a dreadful procession of these drays all Sunday and Monday. Three bargeloads of the dead were towed out to sea and given back to the waves. The weights were not properly attached, and soon the corpses were back in the surf tossing on the beach.

Sunday afternoon the first robbing of the dead was reported. The Galveston men were then on guard. Captain Rafferty had collected his decimated battery, and at the urgent request of citizens, protected the business district. The Galveston Volun-

teers were ordered to kill any man found plundering the dead. Sunday night, Monday and Monday night, many negroes were killed. How many never will be known, for a part of the instructions were: "Make no report." Tuesday, Adj.-Gen. Thomas Scurry, of the State Military Department, arrived. The Galveston company was mustered out, and a Houston company ordered into service. Thereafter there was no killing. Galveston now affects to believe no negroes were killed, but testimony on

the other side is conclusive. Martial law was proclaimed by General Scurry, and made systematic and regular. The citizens perfected their organization, and general orders were issued to everybody to "clean up." Women and children were allowed to leave the city, but men were requested to remain and assist in removing the dead. The public was barred out. There was no lack of food. Bacon, canned goods and flour were there in plenty. If



HAULING THE DEAD FOR BURIAL AT SEA.

there was suffering, it was due to the lack of system in distributing the food. The citizens' committee took charge of grocery stores and gave food to all known to be in want.

After the storm, the weather turned sultry. By Monday the city reeked with the smell of a charnel-house. Pestilence was in the air. Dead animals strewed the streets. The waters of the bay and gulf were thick with the dead, both human and animal.

All of the lime, carbolic acid and camphor in the city was quickly consumed.

An urgent appeal was sent to Houston for disinfectants. The same appeal was sent all over the country. Tuesday, a general cremation of the dead began. Trenches were first dug and lined with wood. The corpses were tossed in and covered with more wood, saturated with oil and set on fire. It was found that this

method was not so effective as the pyre. Bodies were then collected and placed in piles of wreckage and the whole was given to the flames.

Men engaged in this horrible task frequently found relatives and acquaintances, and in some instances their own wives and children. One poor fellow examined the teeth of every female corpse in a vain quest for his wife's body. The men wore camphor-bags under their noses, and frequently became so nauseated they were forced to cease work. The fire purified the air as well as the earth, and was a

great factor in saving the city from scourge. Disinfectants began to come in and were used with a lavish hand. The streets were covered with a solution of lime. Carbolic acid was showered everywhere.

By Friday the waters of the bay and gulf had been partially relieved of the dead. A great pall of smoke overhung the city, telling the story of the incinerations in progress along the beach. The task seemed overwhelming to the fifteen hundred men who were employed. A small street-railway bridge, spanning an inlet in

the gulf, gave up forty-one dead. The bodies had floated in, caught in the timbers and rails, and remained there.

For fifty miles along the coast, on both sides of Galveston, the storm found victims. The waters of the sea were carried inland ten miles all along the coast. Bales of cotton and wreckage from Gal-

veston were found at Lamarque, where ten persons lost their lives.

The island city will never again be popular as a city of homes—not until some engineering genius constructs a sea-wall, or successfully elevates the city ten feet above its present level. These things are not beyond the bounds of possibility. The Southwest requires a port, and Galveston is a natural outlet. Millions have been invested there by the government, by corporations, by exporters and capitalists. All are of one voice as to the future.



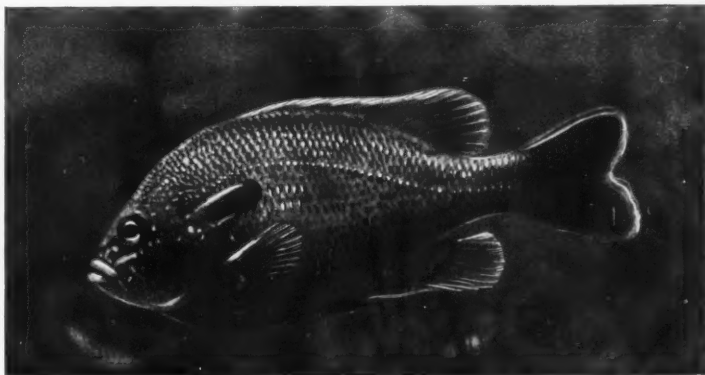
A SCENE ON THE BEACH.



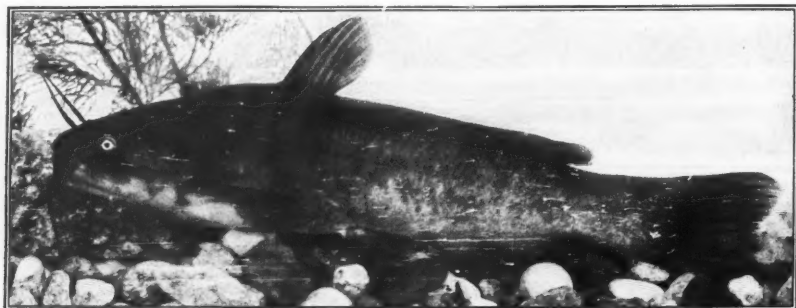
BY DR. R. W. SHUFELDT, U.S.A.

UP to the present time very few photographs of living fishes have been produced, and, as compared with the photography of other live animals, attempts or successes in this line are extremely rare. There are, it is true, several methods by which such creatures may be photographed in their natural element, with normal surroundings. For example, it is possible to accomplish it by employing some such contrivance as the subaquatic camera used by Professor Boutan, a Frenchman, who has succeeded recently in taking the only photographs ever made actually in the sea. With a specially constructed instrument, provided with an astigmatic objective, he has made snap-shots of fishes in the ocean at a depth of three yards, his method being to let down a white sheet, duly weighted, for a background, and to attract the fishes to the front of the sheet by a judicious distribution of bait.

Snap-shots have often been made of fishes leaping into the air, as the salmon, or in the act of flight, as the flying-fish, but they amount to little except as curiosities. They illustrate casual incidents in the lives of the creatures, rather than their every-day habits and physical traits. There are species of fishes which, like the goby, walk about on dry land occasionally, thus affording an excellent opportunity to the photographer, but these are exceptional. It has been proposed to lower cameras two or three miles down into the depths of the sea, and to take flashlight photographs of the denizens of the aqueous abysses; but this plan leaves out of consideration the enormous pressure of the water at those levels, amounting to some tons per square inch, which would



LONG-EARED SUNFISH.



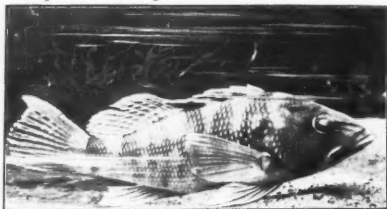
CATFISH.

crush any instrument, though it were made of steel. Conditions in streams and ponds would seem to offer comparatively few difficulties, such waters being readily accessible and well illuminated by daylight; but even with these advantages there is no method by which the fishes can be kept still and persuaded to assume a "pleasant expression" while being pictured.

The only possible way to force aquatic animals to pose is to restrict their liberty and confine them in such a way that they are obliged to sit for their portraits whether they wish to or not. Experience has shown that it is practicable to shut within glass walls a fragment or segment of the great ocean, and, regarding it as an aqueous microcosm, therein to watch the movements and habits of marine creatures confined by the transparent boundaries. It may be—for we know almost nothing of the psychology of fishes—that the transparency of the glass gives to them the happy illusion of liberty, but, at all events, they seem under such conditions, if properly supplied with oxygen, to enjoy themselves and to pursue just about the same modes of existence as are habitual with them when free. Thus it is possible for the naturalist to study marine animals

—the same remarks apply, indeed, to freshwater creatures—in proper aquaria, and to make instructive photographs of them.

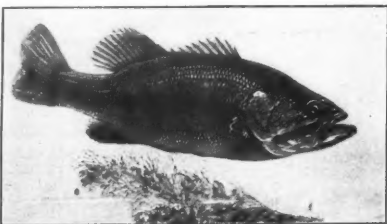
It was in this manner that I made my own fish-photographs. Some comical errors on the subject have crept into print, among which was a statement that I secured my



YOUNG BASS.

snap-shots of finny subjects by diving into the sea, camera in hand. The fact is that my work was mainly done in the so-called Marine Grotto of the United States Fish Commission in Washington,

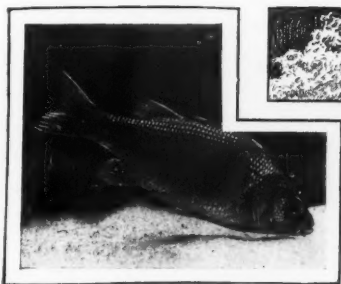
where the ocean world is represented by a series of tanks set in the walls of a very long and narrow room. This room has no windows, and all the light that enters it comes through the glass fronts of the aquaria, which are illuminated from outside and



BIG-MOUTHED BLACK BASS.

above by sunlight. Thus the tanks appear like so many brilliant mural paintings, which, being alive with color and movement, might easily persuade the not-too-matter-of-fact beholder inside the grotto that he was on board of a submarine vessel, journeying along through ocean shallows and looking out through many windows upon varied forms of animal creation in the surrounding waters.

In these tanks are confined many kinds



WHITE PERCH.



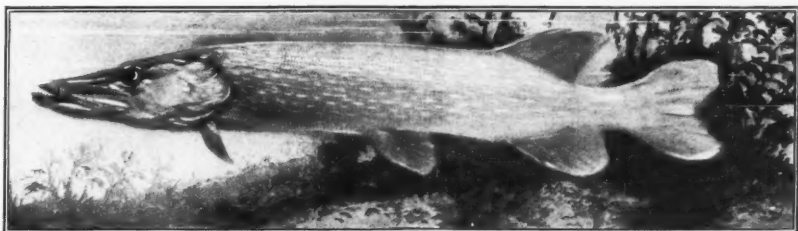
SNOWY GROUPEE.

of marine fishes and other animals, including eels, crabs, lobsters, et cetera, as well as some fresh-water species. I took there, one day, a photograph of four hundred and fifty rainbow trout in a single picture—something I may consider quite unique. Some fishes were comparatively easy to catch with the camera—for instance, pike and pickerel, which have a way of remaining stationary in the water for a long time, barely agitating their fins, though, when they do move, it is with lightning-like speed. The naked star-gazer I took in the act of hiding itself in the sand—a most curious habit that it has. For a long-eared sunfish I waited two weary hours on a sultry afternoon, at the end of which the beautiful specimen I was watching swam directly into the optical field, and, the focus being perfect, I secured, as an amply compensating result, an absolutely accurate picture of this interesting creature.

Another of my successes was with white perch. Two of them, with several sea-trout, were in one of the tanks in the Marine Grotto. It was a chance for an

instantaneous exposure, and, an auspicious moment occurring, I caught the finer of the pair swimming slowly over the bottom in search of food, while a broad ray of light illuminated the sand just beyond him. The result was most striking, showing that this kind of fish, while feeding, lowers its forward back-fin and draws up its belly-fins, while the pectoral fins stand out at right angles with the body. It is an example of the manner in which this sort

of photography may serve to illustrate the habits of fishes usefully for scientific purposes. For the convenience of my photographic work, a special tank of large size, with glass sides, was built in the open air, and into it some of the fishes desired as subjects were put. The purpose of this was to obtain conditions under which the greatest possible amount of light should be secured, and perfectly clear days were chosen for making snap-shots. It was always hard to determine exposures with accuracy, and, while some of my pictures were instantaneous, others were timed for as much as two minutes. The catfish, being sluggish, was one of my best "sitters." For obvi-



PIKE.

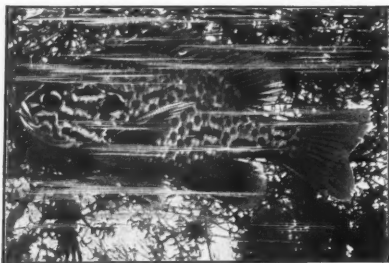


NAKED STAR-GAZER.

ous reasons, fishes deepest in the water "took" darkest, while those near the surface were clearest and sharpest in definition. In one of my snapshots twenty sunfish are shown without the slightest movement in any one.

Two of my most successful pictures were of young sea-bass. There were several of them in one of the aquaria, and the light at the time of taking was excellent. Instantaneous exposures were given, and in one instance the specimen had assumed the remarkable attitude which it has in

green, which unfortunately photograph very dull and pale. Fishes are by far the most brilliantly hued of all animals, and when photography in colors comes at

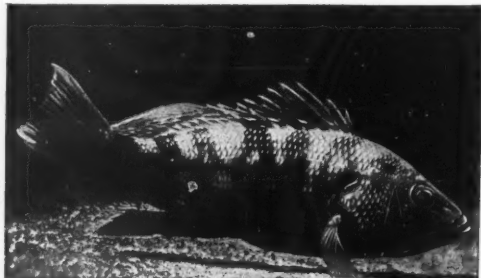


SUNFISH.

nature, of resting upon its pectoral and anal fins. This species has power to change its color at will, varying its tints suddenly, not only for protection, but seemingly in accordance with its humor at the moment. It has beautiful eyes, of a brilliant emerald-

last to be successful, it will find its most attractive subjects in them. As a help in the study of nature, sub-aquatic camera-work finds its most valuable function.

It is desirable that we should know a great deal that is as yet hidden from us respecting the individual history of fishes and other aquatic animals. When, if at all, do



YOUNG SEA-BASS.

they sleep? How and when do they eat their meals? What do they do with their time, when not engaged in feeding? Many other such questions remain to be answered. The sleeping of fishes, if they may properly be said to have such a habit, is as yet a puzzle. It is altogether probable that they do sleep, though they never close their eyes, simply for the reason that they have no eyelids.

Often you may see a tautog in an aquarium lying on the bottom and leaning against the side of the tank. It is certainly resting, and if its eyes were shut, you would say that it was asleep undoubtedly. Probably many fishes slumber while swimming in the water, reducing the exercise of their fins to an automatic minimum. But it would be a mistake to suppose that a fish does its sleeping at night necessarily. On the contrary, many species are nocturnal in habit, feeding in the nighttime, and among these are the snapper, the pompano, and the catfish of the brooks. All of the catfish, indeed, are night-feeders, and presumably take their cat-naps in the day-hours. It is a very curious problem, this question of fish-sleep, and for some time to come we are not likely to ascertain anything very definite on the subject.

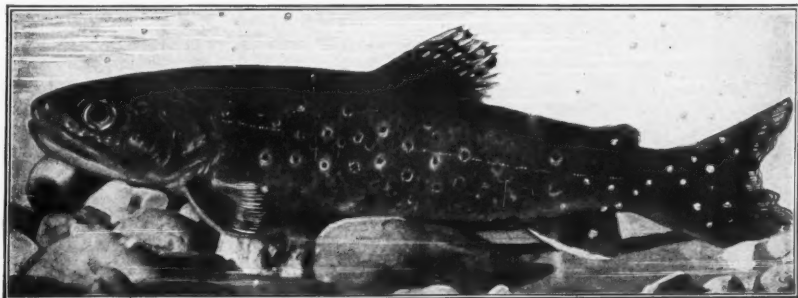
In point of intelligence, fishes rank very low among animals. Of course, they vary in this respect, the highest species struct-



GROUP OF YOUNG SUNFISH.

urally being also the cleverest, as is the case with birds. The black bass and the perch are smart fishes, relatively speaking, and, notwithstanding the popular notion that sharks are very stupid, members of that tribe appear to be considerably above the average in mental equipment. The shark is a beast of prey, and, like all predatory creatures, it requires a superior brain to get a living. There are obvious difficulties in the way of estimating the intelligence of fishes. The trout and the carp show symptoms of cleverness, and the latter can be taught to come to be fed when a bell is rung. Salmon exhibit not a little ingenuity in getting over dams.

The brain of a fish has an enormous development of the optic lobe, in order that the creature may be able to see well in the comparative gloom of the water. Its business in life, apart from breeding, consists wholly in the discovery and pursuit of food; hence all other faculties and senses



BROOK TROUT.



YOUNG BIG-EYE.

are subordinated to vision. A voracious creature, it has no regular meal-times, but swallows as much as it can gobble whenever and wherever it finds provender. The mackerel's dinner is oftentimes spread over many square miles of sea-surface, consisting of a thick broth of minute shrimp-like animals called copepods. Of late years comparatively few mackerel have been brought to market, the fishing for them being now reduced to a pitiful figure, and some naturalists are disposed to ascribe the ruin of this once important industry to the supposed fact that the fishes have learned to dodge the seine-nets, lowered in the deep sea to surround them. When the nets are put down, they dive beneath them and escape. If this theory be correct, the mackerel must have more thinking power than has usually been attributed to them.

As for the moral traits of aquatic animals, it is certain that many of them, like the shark, are very ferocious. A bluefish will swim through a school of menhaden, and cut to pieces fifty times as many as it cares to eat, apparently for sheer wantonness and lust of slaughter. Crabs are very combative, and are constantly fighting duels with each other. A trout will de-

vour its own young as soon as they are big enough to attract its attention; but, on the other hand, several species of fishes show striking signs of parental affection. In midsummer one may see in any pond the adult male catfish accompanied by a swarm of his young, keeping them from all harm until they are big enough to take care of themselves. A pair of black bass, in spring, will clear a circular spot in shallow water a foot or two in diameter, removing all weeds and stones. Here the female lays her eggs, and afterward the male stands guard until they are hatched and the "fry" have reached a size to be independent.

One of the things that excited my interest incidentally to this work of ichthyography was a curious method of fighting adopted by the common tautog of the North Atlantic coast. Two fishes of this species will approach one another face to face, opening their mouths, and the one bringing his teeth into contact with those of his antagonist. Each attempts to force his adversary backward, and if he or the opponent be taken off guard for an instant, the more watchful of the two will make an attempt to attack the other. Sometimes this seems to be done in play, but again it is certainly in earnest. The tautog are very peculiar in their habits, and their behavior on occasions has reminded me of a litter of young pigs.

All fishes have ears, and very many of them possess voices, more or less musical. Some evidence there is, indeed, pointing to the conclusion that they enjoy and appreciate a "concord of sweet sounds." When the famous Humboldt visited the South Seas in 1803, at about 7 p.m. on February 20th, an extraordinary noise startled the crew of the vessel. At first it was like the beating of many drums in the distance, and then the sounds seemed to come from the ship itself, near the poop. It was decided at length that they were made by fishes.





THE WAY THAT HE TOOK.



*Rudyard
Kipling*

Put forth to watch, unschooled, alone
'Twixt hostile earth and sky—
The mottled lizard 'neath the stone
Is wiser here than I.

What stirs across the haze of heat?
What omen down the wind?
The buck that broke before my feet,
They knew, but I am blind!

I.

"WHAT a country to fight for!" said the major of artillery, for the twentieth time. The guns were ambushed behind white-thorned minoas, scarcely taller than their wheels, that marked the line of a dry mullah, and the camp pretended to find shade under a clump of spindling gums planted as an experiment by some zealous minister of agriculture. One small hut, reddish stone with a tin roof, stood where the single track split into a siding. A rolling plain of red earth, speckled with loose stones and sugar-bush, ran northward to the scarps and spurs of a range of little hills—all barren as the doorsills of Tophet, and monstrously exaggerated in the heat haze. Southward the plain lost itself in a tangle of scrub-furred hillocks, upheaved without purpose or order, seared and blackened by the strokes of the careless lightning, seamed down their sides with spent water-courses, and peppered from base to summit with stones—riven, piled, scattered stones. Far away to the eastward, a line of blue-gray mountains, peaked and horned, lifted itself over the muddle of tortured earth. It was the only thing that held steady through the mirage. The nearer hills detached themselves from the plain and swam forward as islands in a milky ocean. While the major stared through puckered eyelids, Leviathan himself waded through the far shallows of it—a black and formless beast.

"That," said the major, "must be the guns coming back." He had sent out two guns, nominally for exercise—actually to show the loyal Dutch that there was such a thing as artillery near the line if any patriot thought fit to tamper with it.

Chocolate smears, looking as though they had been swept with a besom through the raffle of stones, wandered across the levels—unbridged, ungraded, unmetaled. They were the roads to the brown mud-huts, one in each valley, that were officially styled farmhouses. At very long intervals a dusty Cape-cart or a tilted wagon would move along them, and a man, dirtier than the dirt, would come in to sell fruit or scraggy sheep. At night the farmhouses were lighted in a style out of all keeping with Dutch economy; the scrub would light itself on some far headland and the house lights twinkled in reply. Three or four days later the major would read bad news in the Cape Town papers thrown to him from the troop trains.

The guns and their escort changed from Leviathan to the likeness of wrecked boats, their crews struggling beside them. Presently they took their true shape and lurched into camp, across the dry water-courses, amid clouds of dust.

The mounted infantry escort set about its evening meal; the hot air filled with the scent of burning wood; swearing men rough-dried sweating horses with wisps of precious forage; the sun dipped behind the hills, and they heard the throaty whistle of a train from the south.

"What's that?" said the major, slipping on his coat; the decencies had not yet left him.

"Ambulance-train," said the captain of mounted infantry, raising his glasses. "I'd like to talk to a woman again, but it won't stop here. It is stopping, though, and making a beastly noise. Let's look!"

The engine had sprung a leaky tube and ran lamely into the siding.

"It's worn out—overworked and worn out—like the rest of us," said the engineer. "If we 'ad 'arf a loyal government be'ind us, damn 'em, instead o' a gang o' Dutch rebels, they would 'ave got us decent rolling-stock for the war instead o' spendin' their time railin' ammunition to their Boer friends. Me 'ush?"—to the guard. "I won't! I ain't in Cape Town now. I'm among white people. It'll take an hour to botch this tube up—and the 'ole of the time-tables thrown out between 'ere and De Aar! I told 'em at Triangle what she was like——." He kicked the furnace door savagely and went to work.

Two doctors and a couple of nursing sisters stood on the rear platform of the staff carriage. The major explained the situation and invited them to tea.

"We were just going to ask you," said the medical major of the train.

"No—come to our camp. Let the men see a woman again!" they pleaded.

Sister Dorothy, old in the needs of war, for all her twenty-two years, gathered up a tin of biscuits and some bread and butter new-cut by the orderlies. Sister Margaret picked up the tea-pot, the spirit-lamp and a water-bottle.

"Cape Town water," she said, with a nod. "Filtered, too. I know Karroo water." She jumped down lightly to the ballast.

"What do you know about the Karroo, Sister?" said the captain of mounted infantry, indulgently, as a veteran of three months' standing.

She laughed. "It's my home. I was born out there—just behind that big range of hills—out Oudtshorn way. It's only sixty miles from here. Oh, how good it is!"

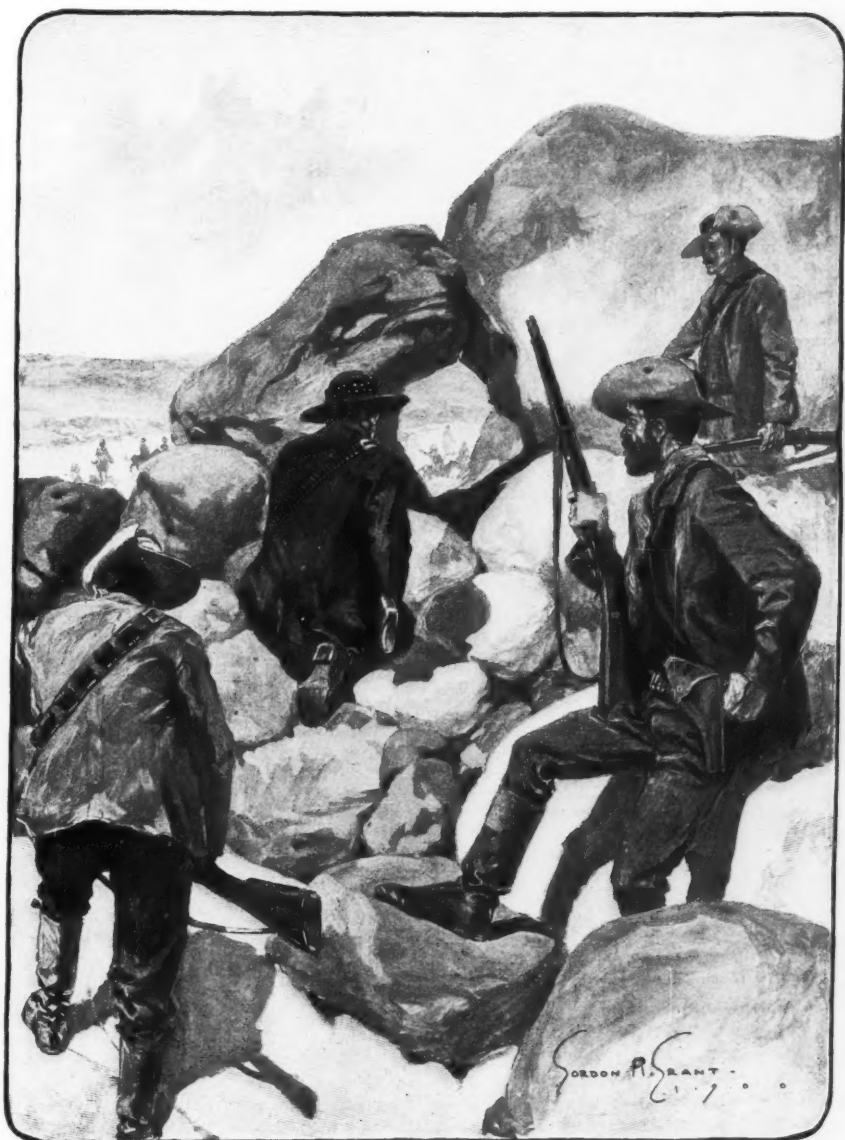
She slipped the nursing sister's cap from her head, tossed it through the open window, and drew a breath of deep content. With the sinking of the sun the dry-dugged

hills had taken life and glowed against the green of the horizon. Red, rust-red, opal, amber, dun and pure cobalt, they rose up like jewels in the utterly clear air, while the valleys between flooded with purple shadow. A mile away, stark-clear, withered rocks showed as though one could reach them with the hand, and the voice of a native herd-boy in charge of a flock of sheep came in clear and sharp over twice



Drawn by
Gordon R.
Grant.

"THAT," SAID THE MAJOR, "MUST BE THE GUNS COMING BACK."



Drawn by Gordon R. Grant.

"TO SHOW THE LOYAL DUTCH THAT THERE WAS SUCH A THING AS ARTILLERY NEAR THE LINE IF ANY PATRIOT THOUGHT FIT TO TAMPER WITH IT."

that distance. Sister Margaret devoured the huge spaces with eyes unused to shorter ranges, snuffed again the air that has no equal under God's sky, and, turning suddenly to her companion, said, "What do you think of it?"

"I am afraid I'm rather singular," he replied. "Most of us hate the Karroo. I used to, but it grows on one somehow. I suppose it's the lack of fences and roads that's so fascinating. And when one gets back from the railway——"

"You're quite right," she said, with an emphatic stamp of her foot. "People come to Matjesfontein—ugh!—with their lungs, and they live opposite the railway station and that new hotel of Logan's, and they think that's the Karroo. They say there isn't anything in it. It's full of life when you get really into it. You see that? I'm so glad. D'you know, you're the first English officer I've heard who has spoken a good word for my country."

"I'm glad I pleased you," said the captain, looking into Sister Margaret's black-lashed gray eyes under the heavy brown hair shot with gray where it rolled back from the tanned forehead. This kind of nurse was new in his experience. He had met many—at Cape Town—and later at Matjesfontein when he was sick with dysentery and Sister Galbraith of Guy's had dissolved him in homesickness by talking about London and the horrors of old and unimprovable Africa. The average sister did not lightly stride over rolling stones, and—was it possible that this woman's long, easy pace uphill was beginning to pump him? As she walked, she hummed joyously to herself, a queer catchy tune of one line several times repeated:

"Vat jou goet en trek, Ferreira.
Vat jou goet en trek."

It ran off with a little trill that sounded like

"Zwaar draa, al en de ein Kant—
Jannie met de hoepel bein!"

"Listen!" she said, suddenly. "What was that?"

"It must be a wagon on the road. I heard the whip, I think."

"Yes, but you didn't hear the wheels, did you? It's a little bird that makes just that noise. 'Whe-ew!'" she duplicated

it perfectly. "We call it——" she gave the Dutch name, which did not, of course, abide with the captain. "We must have given him a scare! You hear him in the early morning when you are sleeping in the wagons. It's just like the noise of a whiplash, isn't it?"

They entered the major's tent a little behind the others, who were discussing the scanty news, and—for reinforcements had not arrived—the standing miracle of De Aar with her million pounds' worth of stores then guarded by some four hundred men.

"Oh, no," said Sister Margaret, coolly, bending over the spirit-lamp, "the Transvaalers will stay round Kimberley and try to put Rhodes in a cage. But of course if a commando gets down to De Aar they will all rise——"

"You think so, Sister?" said the medical major, deferentially.

"I know so. They will rise anywhere if a commando comes actually to them. Presently they will rise in Prieska—if it is only to steal the forage at Van Wyks-Vlei. And why not?"

"We get most of our opinions on the war from Sister Margaret," said the civilian doctor of the train. "It's all new to me, but, so far, all her prophecies have come true."

A few months ago that doctor had retired from practice to a country house in rainy England, his fortune made, and, as he tried to believe, his life-work done. Then the bugles blew and, rejoicing at the change, he found himself, his experience, and his fine bedside manner, buttoned up in a black-tabbed khaki coat, on a hospital train that covered eleven hundred miles a week, carried a hundred cases at a trip, and dealt him more experience in a month than he had ever gained in a year of home practice.

Sister Margaret and the captain of mounted infantry took their cups outside the tent. The captain wished to know something more about her. Till that day he had believed South Africa to be populated solely by sullen Dutchmen and slack-waisted women; and in some clumsy fashion he betrayed the belief.

"Of course you don't see the others where you are," said Sister Margaret, leni-



Drawn by Gordon R. Grant.

"SISTER MARGARET PICKED UP THE TEA-POT, THE SPIRIT-LAMP AND A WATER-BOTTLE."

ently, from her camp-chair. "They are all at the war. I have two brothers, and a nephew, my sister's son, and—oh, I can't count my cousins." She flung her hands outward with a curiously un-English gesture. "And then, too, you have never been off the rail. You have only seen Cape Town? All the schel—all the useless people are there. You should see our country beyond the ranges—Oudtshorn way. We grow fruit and vines. It is much prettier, I think, than Paarl."

"I'd like to very much. I may be stationed in Africa after the war is over."

"Ah, but we know the English officers. They say that this is 'a beastly country,' and they do not know how to be—to be nice to people. Shall I tell you? There was an aide-de-camp at Government House three years ago. He sent out invitations to dinner to Piet—to Mr. Van der Hooven's wife. And she had been dead eight years, and Van der Hooven—he has the big sheep-farms round Cradock—he was a hot Bond man, but just then he was thinking of changing his politics, you see, and taking a house in Cape Town—because of the Army Contracts. That was why. You see?"

"I see," said the captain, to whom this was half Hittite.

"He was a little angry—not much—but he went to Cape Town, and that aide-de-camp had made a joke about it—about the dead woman—in the Civil Service Club. You see? So, of course, the Bond men there told Van der Hooven that the aide-de-camp had said he could not remember all the old Dutch vrous that died, and Van der Hooven went away and now he is more hot Bond than ever. If you stay with us you must not be like that. You see?"

"I won't," said the captain, seriously. "What a God's own night it is, Sister." He dwelt lovingly on the last word, as all men do in South Africa.

The soft darkness had shut upon them unawares and the earth had vanished. There was not so much breeze as a slow motion of the whole dry air under the vault of the immeasurably deep heavens. "Look up," said the captain. "Doesn't it make you feel as if we were tumbling down into the stars—all upside down?"

"Yes," said Sister Margaret, tilting her head back on the camp-chair. "It is always like that, I know. And those are our stars."

They burned with a great glory, large as the eyes of cattle by lamplight; planet after planet of the mild southern sky. As the captain said, one seemed to be falling from the hidden earth sheer through space, between them.

"Now, when I was little," Sister Margaret began very softly—"there was one day in the week at home that was all our own. We could get up as soon as we liked after midnight, and there was the basket in the kitchen—our food. We used to go out at three sometimes, my two brothers, my sisters, and the two little ones—out into the Karroo for all the day. All—the—long—day. First we built a fire and then we made a kraal for the two little ones—a kraal of thorn-bushes so that they should not be bitten by anything. You see? Often we made the kraal before morning—when those—" she jerked her firm chin at the stars—"were just going out. Then we old ones went hunting lizards—wacht-heikes—and snakes and birds and centipedes and all that sort of nice thing. Our father collected them. He gave us half a crown for a spung-slange—a kind of snake. You see?"

"How old were you?" Snake-hunting did not strike the captain as a safe amusement for the young.

"I was eleven, then—or ten, perhaps—and the little ones were two and three. Why? Then we came back to eat and we sat under a rock all the afternoon—it was hot, you see—and we played—we played with the stones and the flowers. Almighty! You should see our Karroo in spring! All flowers! All our flowers! Then we came home carrying the little ones on our backs asleep—came home through the dark—just like this night. That was our own day. Oh, the good days! We used to watch the meer-cats playing, too—and the little buck. When I was at Guy's learning to nurse, how homesick that made me!"

"But what a splendid open-air life!" said the captain.

"Where else is there to live except the open air?" said Sister Margaret, looking



Drawn by Gordon R. Grant.

"THE TRANSVAALERS WILL STAY ROUND KIMBERLEY AND TRY TO PUT RHODES IN A CAGE."

off into twenty thousand square miles of it, Major Devine and Doctor Johnson have with eyes that burned. gone down already."

"You're quite right."

"I'm sorry to interrupt you two," said Sister Dorothy, who had been talking to The captain rose unwillingly and made for the worn path from the tent to the rail.

the gunner major, "but the guard says we "Isn't there another way?" said Sister Margaret. Her gray nursing-gown

glimmered like some big moth's wing.

"No. I'll bring a lantern. It's safe."

"I did not think of that," she said, with a laugh. "Only we never come home by the way we left it when we live in the Karroo. If any one—suppose you had dismissed a Kaffir or got him sjamboked and he saw you go out? He would wait for you to come back on a tired horse and then——. You see? But, of course, in England where the road is all walled it is different. How funny! Even when I was little we learned never to come home the way we went out."

"Very good," said the captain, obediently. It made the walk longer and he approved of that.

"Why do you bring the lantern?" said Sister Margaret. "Can't you see? Are you afraid of snakes?"

"That's a rather curious sort of woman," said the captain to the major, as they smoked a lonely pipe together when the train had gone.

"You seemed to think so. I noticed you stuck to her like a leech."

"Well, I couldn't monopolize Sister Dorothy in the presence of my senior officer. Tell me what the other one was like."

"Oh, rather fun. It came out that she knew a lot of my people in London. She's the daughter of a chap in the next county to us, too."

(To be concluded.)

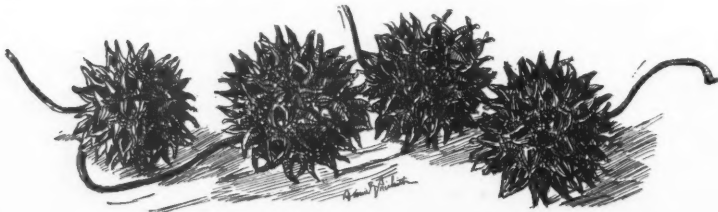
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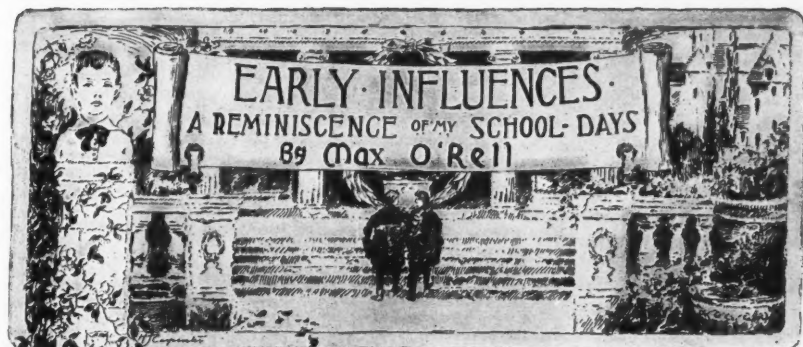
BY ELLA WHEELER WILCOX.

OVER and over and over,
These truths I will weave in song:
That God's great plan needs you and me,
That Will is greater than Destiny,
And that love moves the world along.

However mankind may question,
It shall listen and hear my Creed:
That God may ever be found within,
That the worship of self is the only sin,
And the only devil is greed.

Over and over and over,
These truths I will say and sing:
That love is mightier far than hate,
That a man's own thought is a man's own fate,
And that life is a goodly thing.





HE mind of a child is like wax to receive impressions, and parents can never be too watchful over the company kept by their children.

I have always attributed what little success I have met with in life to the friendship of a boy of my own age whom I joined at school when I was twelve years old, and under whose influence I remained until I passed my examinations for the degrees of B.A. and B.Sc. in Paris and left school.

I used to look up to him as a marvel, the very embodiment of everything that was clever, right and lofty. I was lazy, and he made a hard-working boy of me, and that without any self-assertion, much less tyranny. He criticised my work most searchingly and severely before it was presented to the masters, and always insisted on my criticising his in the same manner. We soon became desperate rivals in class, he being always first and myself generally second; but our close friendship never suffered from that keen competition. A few weeks before an examination took place, he got up at five o'clock in the morning, and never would fail to wake me and make me get up, so as to have no unfair advantage over me. If he worked late at night, I would work by his side till he was worn out and would retire, then I would go to bed too. This went on for six years, until we left school, he to study medicine, and I to enter the military school.

In 1865, we were in a batch of twenty-seven candidates for the B.A. degree.

Five passed; I was first and he was second. The following year, we were among thirty-two candidates for the B.Sc. degree. Eight passed; he was first and myself second. What I am perfectly sure of is that I was overwhelmed with joy at the idea that, as I had beaten him at the B.A. examination, he had beaten me at the B.Sc. He is now one of the medical celebrities of Paris. I have ever since been a little of a rolling stone, yet gathering a bit of moss on the way.

I felt his influence in the smallest things, and, to this very day, I indulge in a more or less objectionable trick that I unconsciously took up while I was at school by the side of my young friend. If he saw a ticket in a book, a railway label on a trunk, a little loose skin on his fingers, little scraps on a schoolfellow's coat, he was unable to resist the temptation to take them off. I soon found myself indulging in the same habit. To-day, thirty years later, if I perceive any little bits on anybody's clothes, in a railway carriage, in an omnibus, in a private house, in front of me at the theater, I have to use all the self-control that I may have acquired by thirty years of contact with the Anglo-Saxon race to refrain from taking them off, and saying to the wearer, like Miggles in "The Shop Girl," "Pardon me, a bit of fluff!" On the platform of a railway-station I have many times felt actually compelled to keep away from passengers' baggage, in order to avoid the imperative impulse to tear old labels off their trunks, a sort of mild and innocent form of kleptomania.

In America with the check system I am safe.

WHAT COMMUNITIES LOSE BY THE COMPETITIVE SYSTEM.

BY JACK LONDON.

EDITORIAL NOTE.—Last year *THE COSMOPOLITAN* offered the sum of two hundred dollars for the best article on Loss by Lack of Coöperation. The paper of Mr. Jack London, herewith published, is regarded as the ablest of the many submitted.

MAN'S primacy in the animal kingdom was made possible, first, by his manifestation of the gregarious instinct; and second, by his becoming conscious of this instinct and the power within it which worked for his own good and permitted him to endure. Natural selection, undeviating, pitiless, careless of the individual, destroyed or allowed to perpetuate, as the case might be, such breeds as were unfittest or fittest to survive. In this sternest of struggles man developed the greatest variability, the highest capacity for adaptation; thus he became the favored child of the keenest competition ever waged on the planet. Drawing his strength and knowledge from the dugs of competition, he early learned the great lesson: that he stood alone, unaided, in a mighty battle wherein all the natural forces and the myriad forms of organic life seethed in one vast, precarious turmoil. From this he early drew the corollary, that his strength lay in numbers, in unity of interests, in solidarity of effort—in short, in combination against the hostile elements of his environment. His history substantiates it. From the family to the tribe, to the federation of tribes, to the nation, to the (to-day) growing consciousness of the interdependence of nations, he has obeyed it; by his successes, his mistakes and his failures, he has proved it. There is much to condemn, much which might have been better, but in the very nature of things, not one jot or tittle could have been otherwise than it has. And to-day, while he may felicitate himself on his past, none the less vigilant must be his scrutiny of the future. He cannot stop. He must go on.

But of the various forms of combination or coöperation which have marked the progress of man, none has been perfect; yet have they possessed, in a gradually ascending scale, less and less of imperfection. Every working political and social organism has maintained, during the period of its usefulness and in accordance with time and

place, an equilibrium between the claims of the individual and the claims of society. When the balance was destroyed, either by too harsh an assertion of the right of the single life or the right of the type, the social organism has passed away, and another, adjusted to the changed conditions, replaced it. While the individual has made apparent sacrifices in the maintenance of this equilibrium, and likewise society, the result has been identity of interest, and good, both for the single life and the type. And in pursuance of this principle of the coöperation of man against the hostile elements of his environment, social compacts or laws have been formulated and observed. By the surrender of certain rights, the friction between the units of the social organism has been reduced, so that the organism might continue to operate. The future and inevitable rise of the type and the social organism, must necessitate a still further reduction in the friction of its units. Internal competition must be minimized, or turned into channels other than those along which it works to-day. This brings us to a discussion of the present: What the community loses by the competitive system.

DIVISION OF LAND.

All things being equal, ten thousand acres of arable land, under one executive, worked en bloc, say for the purpose of growing wheat, utilizing the most improved methods of plowing, sowing and harvesting, will produce greater returns at less expense than can an equal number of acres, divided into one hundred plots, and worked individually by one hundred men. If the community, believing this friction of its units to be logical, farms in the latter manner, it must suffer a distinct pecuniary loss. And the effects of this loss—call it lack of gain if you will—though apparently borne by the agrarian population, are equally felt by the urban population. Of the many items which at once suggest themselves, consider the simple one of

fences. For the division of land in the state of Indiana alone, their cost is computed at two hundred million dollars, and if placed in single file at the equator, they would encircle the globe fourteen times. Under a scientific system of agriculture they could be almost wholly dispensed with. As it is, they represent just so much waste of energy, just so much real loss of wealth. And these losses, of which the preceding is but one of a host, may be attributed to a certain asserted right of the individual to private ownership in land.

To this division of land among individuals, whether in the country, in the city or in franchises, may be traced numerous other losses and grotesque features of the community. Lack of combination in the country causes expensive crops; in the city, expensive public utilities and service, and frightful architectural monstrosities. If a street railway corporation can issue an annual dividend of ten per cent to its shareholders, the community, through lack of the coöperation necessary to run that railway for itself, has lost the ten per cent, which otherwise it might have enjoyed in bettering its transit service, by the building of recreative parks, by the founding of libraries, or by increasing the efficiency of its schools. With regard to architecture, the presence of coöperation among individuals is most notable where it occurs, most notorious where it is absent. Some few of the public buildings, and many tasteful portions of the select resident districts, are examples of the one; sky-scrapers and rattle-trap tenements, of the other. A pumpkin between two planks, unable to obtain a proper rotundity, will lengthen out. Want of combination among adjacent property-owners, and the sky-scraper arises. A pumpkin is denied volition; man is not. The pumpkin cannot help itself; man may remove the planks. There is a certain identity in the *raison d'être* of the pumpkin and the sky-scraper. Man may remedy either, for to him is given the power of reacting against his environment.

LOSS OF EFFORT.

If one were to hire two men to do his gardening when there was no more work than could reasonably be done by one, how

quickly his neighbor would decry his extravagance! Yet in the course of the day, with the greatest equanimity, that same neighbor will fare forth and pay his quota for a score of services each performed by two or more men where only one is required. But he is dense to this loss to the community, which he, as a member, must pay. On his street from two to a dozen milkmen deliver their wares, likewise as many butchers, bakers and grocers; yet one policeman patrols and one postman serves the whole district. Downtown are a dozen groceries, each paying rent, maintaining fixtures and staffs of employees, and doing business within half as many blocks. One big store could operate the distributing function performed by these dozen small ones, and operate it more efficiently and at far less cost and labor. The success of the great department stores is a striking proof of this. The department store, in wiping out competition, gets greater returns out of less effort. And having destroyed competition, there is no longer any reason that it should exist, save as the common property of the community to be operated for the community's common good. It cannot be denied that the community would gain by so operating it, and not only in this but in all similar enterprises.

Take, for instance, because of this prerogative of friction the units of society maintain as their right, another series of burdens borne by the community. To make it concrete, let the drummer class serve as an illustration. Certainly fifty thousand is a conservative estimate for the drummers or traveling men of the United States. And it is very conservative to place their hotel bills, traveling expenses, commissions and salaries at five dollars a day per man. Since the producer must sell his wares at a profit or else go out of business, the consumer must pay the actual cost of the article—whether it be the legitimate cost or not—plus the per cent increment necessary for the continued existence of the producer's capital. Therefore the community, being the consumer, must support these fifty thousand five-dollar-a-day drummers; this, aggregated, forms a daily loss to the community of a quarter of a million, or an annual loss of

upward of a hundred millions of dollars. Nor, from the economic view, is this the sum total of the community's loss. These drummers are not legitimate creators of wealth. The cost they add to the articles they sell is an unnecessary one. The function they carry on in society is absolutely useless. Their labor is illegitimately expended. Not only have they done nothing, but they have been paid as though they had done something. Assuming eight hours to be the normal working day, they have, in the course of the year, taking Sundays and holidays into consideration, thrown away one hundred and twenty millions of working hours. The community has paid for this and lost it. It possesses nothing to show for their labor, save a heavy item in its expense account. But what a gain there would have been had they devoted their time to the planting of potatoes or the building of public highways! And it must be borne in mind that this is but one of a long series of similar burdens which may be assembled under the head of "commercial waste." Consider the one item of advertisement. To make the advertisements which litter the streets, desecrate the air, pollute the country, and invade the sanctity of the family circle, a host of people are employed, such as draftsmen, paper-makers, printers, bill-posters, painters, carpenters, gilders, mechanics, et cetera. Soap and patent-medicine firms have been known to expend as high as half a million dollars a year for their advertising. All this appalling commercial waste is drained from the community. Commercial waste exists in many forms, one of which is the articles made to sell, not use, such as adulterated foods and shoddy goods; or, to travesty Matthew Arnold, razors which do not shave, clothing which does not wear, watches which will not run.

Let one other example of the loss of effort suffice: that of competing corporations. Again to be concrete, let the example be a public municipal utility. A water company has the necessary water supply, the necessary facilities for distributing it, and the necessary capital with which to operate the plant. It happens to be a monopoly, and the community clamors for competition. A group of

predatory capitalists invades the established company's territory, tears up the streets, parallels the older company's mains, and digs, tunnels and dams in the hills to get the necessary commodity. In view of the fact that the other company is fully capacitated to supply the community, this is just so much waste of effort; and equally so, some one must pay for it. Who? Let us see. A rate war ensues. Water becomes a drug on the market. Both companies are operating at ruinous losses, which must ultimately destroy them. There are three ways by which the struggle may be concluded. First, the company with the smallest capital may go under. In this case the capitalists have lost the money invested, the community the labor. But this rarely happens. Second, the wealthier company may buy out the poorer one. In this case it has been forced to double its invested capital. Since it is now become a monopoly, and since capital requires a certain definite rate of interest, the community's water bills must rise to satisfy it. Third, both companies being of equal strength, and a Kilkenny-cat conclusion being impossible, they combine, with doubled capital which demands a double return. In one of these three ways the competition of corporations must inevitably result; nor can the community escape the consequent loss, save by the coöperative operation of all such industries.

COSTLINESS OF EFFORT.

Because of the individual performance of many tasks which may be done collectively, effort entails a corresponding costliness. Since much that might have been included under this head has been previously discussed, such labors as may be purely individual shall be here handled. In the field of household economics there are numerous losses of this nature. Of these, choose one. Contemplate that humble but essentially necessary item, the family wash. In a hundred houses, on washing-day, are one hundred toiling housewives, one hundred homes for the time being thrown out of joint, one hundred fires, one hundred tubs being filled and emptied, and so forth and so on—soap, powder, bluing, fuel and fixtures, all bought at expensive retail prices. Two men, in a well-appointed small steam-

laundry, could do their washing for them, year in and year out, at a tithe the expense and toil. Disregarding the saving gained by the wholesale purchase of supplies, by system, and by division of labor, these two men, by machinery alone, increase their power tenfold. By means of a proper domestic coöperation, if not municipal, each of these housewives would save a sum of money which would go far in purchasing little luxuries and recreations.

Again, consider the example of the poorer families of a large town, who buy their food and other necessities from at least one hundred shops of one sort and another. Here, the costliness of effort for which they pay is not theirs but that of the people they deal with. Instead of one large distributing depot, these one hundred petty merchants each order and handle separate parcels of goods, write separate letters and checks, and keep separate books, all of which is practically unnecessary. Somebody pays for all this, for the useless letters, checks, parcels, clerks, book-keepers and porters, and assuredly it is not the shopkeeper. And aside from all this, suppose each shop clears for its owner ten dollars a week—a very modest sum—or five hundred dollars a year. For the one hundred shops this would equal fifty thousand dollars. And this the poorer members of the community must pay.

The people have come partially to recognize this, however. To-day no man dreams of keeping his own fire-fighting or street-lighting apparatus, of maintaining his own policeman, keeping his street in repair, or seeing to the proper disposition of his sewage. Somewhere in the past his ancestors did all this for themselves, or else it was not done at all; that is to say, there was greater friction or less coöperation among the units of society then than now.

TRADE AND COMMERCIAL CRISES.

At one time our forefathers, ignorant of hygiene, sanitation and quarantine, were powerless before the plagues which swept across the earth; yet we, their enlightened descendants, find ourselves impotent in the face of the great social catclysms known as trade and commercial crises. The crises are peculiarly a modern product—made possible by the specialization of

industry and the immense strides which have been taken in the invention of labor-saving machinery, but due, and directly so, to the antagonism of the units which compose society. A competent coöperative management could so operate all the implements and institutions of the present industrial civilization, that there need never be a fear of a trade or commercial crisis. Boards or departments, scientifically conducted, could ascertain, first, the consuming power of the community; second, its producing power; and then, by an orderly arrangement, adjust these two, one to the other. These boards or departments would have to study all the causes which go to make the community's producing power inconstant—such as failure of crops, drouths, et cetera—and so to direct the energy of the community that equilibrium between its production and consumption might still be maintained. And to do this is certainly within the realm of man's achievement.

But instead of this logical arrangement of industry, the community to-day possesses the chaotic system of competitive production. It is a war of producers, also of distributors. Success depends on individual knowledge of just how much and at what cost all others are producing, and of just how much and at what prices they are selling. All the factors which decide the fluctuations of the world's markets or the purchasing power of its peoples, must be taken into account. A war-cloud in the Balkans, a failure of crops in the Argentine, the thoughtless word of a kaiser, or a strike of organized labor, and success or failure depends on how closely the results of this event have been foreseen. And even then, because of a thousand and one fortuitous happenings, chance plays an important part. Even the footing of the wisest and the surest is precarious. Risk is the secret of gain. Lessen the risk, the gain is lessened; abolish it, and there can be no gain. Individual strives against individual, producing for himself, buying for himself, selling for himself, and keeping his transactions secret. Everybody is in the dark. Each is planning, guessing, chancing; and because of this, the competitive system of industry, as a whole, may be justly char-

acterized as planless. The effort lost is tremendous, the waste prodigal. A favorable season arrives. Increased orders accelerate production. Times are prosperous. All industries are stimulated. Little heed is taken of the overstocking of the markets, till at last they are flooded with commodities. This is the danger-point. The collapse of a land-boom in Oregon, the failure of a building association in Austria—anything may start the chain of destruction. Speculations begin to burst, credits to be called in, there is a rush to realize on commodities produced, prices fall, wages come down, factories close up, and consumption is correspondingly reduced. The interdependence of all forms of industry asserts itself. One branch of trade stops, and those branches dependent upon it, or allied with it, cannot continue. This spreads. Depression grows, failures increase, industry is paralyzed. The crisis has come! And then may be observed the paradoxical spectacle of glutted warehouses and starving multitudes. Then comes the slow and painful recovery of years, then an acceleration of planless production, and then another crisis. This is friction, the inevitable correlative of a disorderly system of production and distribution. And the losses incurred by such friction are incalculable.

COMMERCIAL SELECTION.

The forces of evolution, effecting their ends under various guises, are, after all, one and the same in principle. They are conscious of neither good nor evil, and work blindly. In any given environment they decide which are to survive and which to perish. But the environment they do not question; it is no concern of theirs, for they work only with the material that is. Nor are they to be bribed or deceived. If it be a good environment, they will see to it that the good endure and the race be lifted; if an evil environment, they will select the evil for survival, and degeneration or race deterioration will follow.

In the world primeval, man was almost utterly the creature of his natural environment. Possessing locomotion, he could change the conditions which surrounded him only by removing himself to some other portion of the earth's surface. But

man so developed that the time came when he could change his natural environment, not by removing but by reacting upon it. If there were ferocious animals, he destroyed them; pestilential marshes, he drained them. He cleared the ground that he might till it, made roads, built bridges—in short, conquered his natural environment. Thus it was that the road-maker and bridge-builder survived, and those who would make neither roads nor bridges were stamped out.

But to-day, in all but the most primitive communities, man has conquered his natural environment and become the creature of an artificial environment which he himself has created. Natural selection has seemingly been suspended; in reality, it has taken on new forms. Among these may be noted military and commercial selection. Intertribal warfare, in which farming and fighting are carried on alike by all male members of the community, does not give rise to military selection. This arises only when tribes have united to form the state, and division of labor decides it to be more practicable that part of the community farm all the time, and part of the community fight all the time. Thus is created the standing army and the regular soldier. The stronger, the braver, the more indomitable, are selected to go to the wars, and to die early, without offspring. The weaker are sent to the plow and permitted to perpetuate their kind. As Doctor Jordan has remarked, the best are sent forth, the second-best remain. But it does not stop at this. The best of the second-best are next sent, and the third-best is left. The French peasant of to-day demonstrates what manner of man is left to the soil after one hundred years or so of military selection. Where are the soldiers of Greece, Sparta and Rome? They lie on countless fields of battle, and with them their descendants which were not. The degenerate peoples of those countries are the descendants of those who remained to the soil—"of those who were left," as Doctor Jordan aptly puts it.

To-day, however, more especially among ourselves, military selection has waned, but commercial selection has waxed. Those members of the social organism who are

successful in the warfare of the units, are the ones selected to survive. Regardless of the real welfare of the race, those individuals who better adapt themselves to the actual environment are permitted to exist and perpetuate themselves. Under the industrial system as at present conducted, in all branches the demand for units is less than is the supply. This renders the unit helpless. Trade is unsentimental, unscrupulous. The man who succeeds in acquiring wealth, is assured of his own survival and that of his progeny. Much selfishness and little altruism must be his, and the heritage he passes down; otherwise he will not acquire his wealth, nor his descendants retain theirs, and both he and they will be relegated to the middle class. Here the keenest and usually the more conscienceless trader survives. If he be unwise or lenient in his dealings, he will fail and descend to the working class. Conditions here change. The individual who can work most, on least, and bow his head best to the captains of industry, survives. If he cannot do these things well, his place is taken by those who can, and he falls into the slum class. Again conditions change. In the slums, the person who brings with him or is born there with normal morals, et cetera, must either yield or be exterminated; for the criminal, the beggar and the thief are best fitted to survive in such an environment and to propagate their kind.

Briefly outlined, this is commercial selection. The individual asserts its claims, to the detriment and injury of the type. It is well known that the intensity of the struggle has increased many fold in the last five decades, and it is self-evident that its intensity must still further and frightfully increase in the next five decades, unless the present system of production and distribution undergoes a modification for the better. Retaining it in its entirety, there are two salutary but at the same time absurd ways of ameliorating things: either kill off half the units, or destroy all machinery. But this is as temporary as it is unwise. Only a little while and commercial selection would again prevail. Besides, man must go forward; he can neither stop nor turn back.

Commercial selection means race prostitution, and if continued, race deterioration. Internal competition must be minimized and industry yield more and more to the coöperative principle. For the good of the present and the future generations, certain rights of the individual must be curtailed or surrendered. Yet this is nothing new to the individual; his whole past is a history of such surrenders.

The old indictment that competitive capital is soulless, still holds. Altruism and industrial competition are mutually destructive. They cannot exist together. The struggling capitalist who may entertain philanthropic notions concerning the conduct of his business, is illogical, and false to his position and himself, and if he persists he will surely fail. Competitive industry is not concerned with right or wrong; its sole and perpetual query is, How may I undersell my competitors? And one answer only is vouchsafed: By producing more cheaply. The capitalist who wishes to keep his head above the tide must scale his labor and raw material as relentlessly as do his business rivals, or even a little more so. There are two ways of scaling raw material: by reducing quality and adulterating, or by forcing the producer to sell more cheaply. But the producer cannot scale nature; there is nothing left for him to do but scale his labor. Altruism is incompatible with business success. This being so, foul air, vile water, poor and adulterated foods, unhealthy factory work, crowding, disease, and all that drags down the physical, mental and moral tone of the community, are consistent and essential adjuncts of the competitive system.

THE ESTHETIC LOSS.

As being the more striking, the only form of art here considered will be that which appeals to the mind through the eye; but what is said will apply, subject to various modifications, to all other forms of the esthetic. Art is at present enjoyed by a greatly favored but very small portion of the community—the rich and* those that are permitted to mingle with them. The poor, lacking not only in time and means but in the training so essential to a just comprehension of the beautiful, and having offered to them only the inferior

grades, and because of all this, reacting upon an already harsh environment, live unlovely lives and die without having feasted their souls on the real treasures of life.

And even to the rich and those that cling about their skirts, only fleeting visions may be had of art. Their homes and galleries may be all the soul desires; but the instant they venture on the streets of the city, they have left the realm of beauty for an unsightly dominion, where the utilitarian makes the world hideous and survives, and the idealist is banished or exterminated.

Art, to be truly effective, should be part and parcel of life, and pervade it in all its interstices. It should be work-a-day as well as idle-day. Full justice should be accorded the artist of the period; to do this the whole community should enjoy, appreciate and understand the work of one who has toiled at creating the beautiful. Nor can this be done till the belly-need is made a subsidiary accompaniment of life, instead of being, as it now is to so many, the sole and all-important aim.

Present-day art may be characterized as a few scattered oases amid a desert of industrial ugliness. Not even among the rich can all refresh themselves at the fountains. The nineteenth-century business man has no time for such. He is the slave of his desk, the genie of the dollar.

The artist exerts himself for a very small audience indeed. The general public never attains a standard of comprehension; it cannot measure his work. It looks upon his wares in the light of curiosities, baubles, luxuries, blind to the fact that they are objects which should conduce to the highest pleasure. And herein great injury is done the artist, and heavy limitations are laid upon him. But so long as "society flourishes by the antagonism of its units," art, in its full, broad scope, will have neither place nor significance; the artist will not receive justice for his travail, nor the people compensation for their labor in the common drudgery of life.

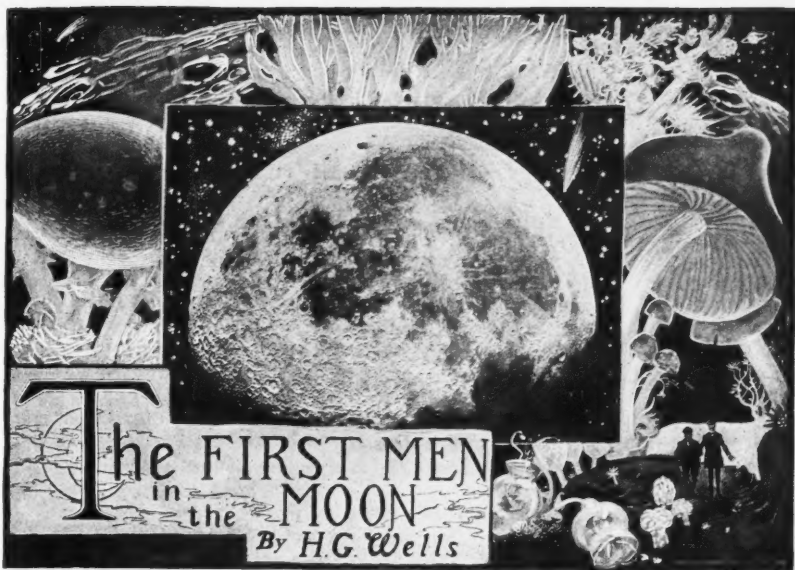
INDIVIDUALITY.

Variety is the essence of progress; its manifestation is the manifestation of individuality. Man advanced to his dominant position among the vertebrates because his "apelike and probably arboreal ances-

tors" possessed variety to an unusual degree. And in turn, the races of man possessing the greatest variability advanced to the center of the world-stage, while those possessing the least retreated to the background or to oblivion.

There should be no one type of man. A community in which all men are run in the same mold is virtually bankrupt, though its strong-boxes be overflowing with the treasures of the world. Such a community can endure only through a process of vegetation; it must remain silent or suffer ignominy. An instance of this is afforded by Spain and her Invincible Armada. The Spaniards were great fighting-men; so were the English. But the English could also build ships and sail them, cast cannon and shoot them. In short, the English possessed and utilized variety. Spain, through a vicious social selection, had lost the greater part of the variety which was hers in former times. Nor was this loss due to an innate degeneracy of her people, but to her social, political and religious structures.

A people must have some standard by which to measure itself and its individuals; then it must shape its institutions in such manner as will permit its attaining this standard. If the measure of individual worth be, *How much have I made?* the present competitive system is the best medium by which to gain that end; but under all its guises it will form a certain type—from the factory hand to the millionaire there will be the one stamp of material acquisitiveness. But if the measure be, *What have I made of myself?* it cannot be attained by the present system. The demand of the belly-need is too strong; the friction too great: individuality is repressed, forced to manifest itself in acquisitiveness and selfishness. And after all, the greatness of a community lies not in the strength of its strong-boxes, nor in the extravagant follies of a few of its members, but in its wisdom, its power for good, and its possibility of realizing in itself the highest and the best. It were well to stand, as Doctor Jordan has said, "for civic ideals, and the greatest of these, that government should make men by giving them freedom to make themselves."



Drawn by E. Herling.

"MENIPPUS: Three thousand stadia from the earth to the moon. . . . Marvel not, my comrade, if I appear talking to you on superterrestrial and aerial topics. The long and short of the matter is that I am running over the order of a Journey I have lately made."—*Lucian's Icaromenippus*.

I.

MR. BEDFORD MEETS MR. CAVOR AT LYMPNE.

AS I sit down to write here amidst the shadows of vine-leaves under the blue sky of southern Italy, it comes to me with a certain quality of astonishment that my participation in these amazing adventures of Mr. Cavor was, after all, the outcome of the purest accident. It might, I admit, have been any one. I fell into these things at a time when I thought myself removed from the slightest possibility of disturbing experiences. I had gone to Lympne because I had imagined it the most uneventful place in the world. "Here, at any rate," said I, "I shall find peace and a chance to work!" And this narrative is the sequel.

I may perhaps mention here that very recently I had come an ugly cropper in certain business enterprises. Sitting now surrounded by all the circumstances of wealth, there is a luxury in admitting my extremity. It is scarcely necessary to go into the details of the speculations that landed me at Lympne. Nowadays even about business transactions there is a strong

spice of adventure. I took risks. In these things there is invariably a certain amount of give and take, and it fell to me finally to do the giving. Reluctantly enough. Even when I had got out of everything, one cantankerous creditor saw fit to be malignant. It seemed to me at last that there was nothing for it but to write a play, unless I wanted to drudge for my living as a clerk. I had always had an idea that I was equal to writing a play. I knew there is nothing a man can do outside legitimate business transactions that has such opulent possibilities, and I had got into the habit of regarding this unwritten drama as a convenient little reserve put by for a rainy day. That rainy day had come and so I set to work.

I soon discovered that writing a play was a longer business than I had supposed—at first I had reckoned ten days for it—and it was to have a pied-à-terre while it was in hand that I came to Lympne. I reckoned myself lucky in getting that little bungalow. I got it on a three years' agreement. I put in a few sticks of furniture, and while the play was in hand I did my own cooking. My cooking would have

shocked Mrs. Bond. I had a coffee-pot, a saucepan for eggs and one for potatoes, and a frying-pan for sausages and bacon. Such was the simple apparatus of my comfort. For the rest, I laid in an eighteen-gallon cask of beer on credit, and a trustful baker came each day. I have had worse times.

Certainly, if any one wants solitude, the place is Lympne. It is in the clay part of Kent, and my bungalow stood on the edge of an old sea-cliff and stared across the flats of Romney Marsh at the sea. In very wet weather the place is almost inaccessible, and I have heard that at times the postman used to traverse the more suctorial portions of his route with boards upon his feet. Outside the doors of the few cottages and houses that make up the present village, big birch besoms are stuck to wipe off the worst of the clay, which will give some idea of the texture of the district. I doubt if the place would be there at all if it were not a fading memory of things gone forever. It was the big port of England in Roman times, *Portus Lemanus*, and now the sea is four miles away. All down the steep hill are boulders and masses of Roman brickwork, and from it old Watling Street, still paved in places, starts like an arrow to the north. I used to stand on the hill and think of it all, the galleys and legions, the captives and officials, the women and traders, all the swarm and tumult that came clanking in and out of the harbor. And now just a few lumps of rubble on a grassy slope and a sheep or two—and me! And where the port had been were the levels of the marsh, sweeping round in a broad curve to distant Dungeness and dotted here and there with tree clumps and the church towers of old medieval towns that are following *Lemanus* now toward extinction.

That outlook on the marsh was indeed one of the finest views I have ever seen. I suppose Dungeness was fifteen miles away; it lay like a raft on the sea, and farther westward were the hills by Hastings under the setting sun. Sometimes they hung close and clear, sometimes they were faded and low, and often the drift of the weather took them clean out of sight. And all the nearer parts of the marsh were laced and lit by ditches and canals.

The window at which I worked looked

over the sky-line of this crest, and it was from this window that I first set eyes on Cavor. It was just as I was struggling with my scenario, holding down my mind to the sheer hard work of it, and so naturally enough he arrested my attention.

The sun had set, the sky was a vivid tranquillity of green and yellow, and against that he came out black, the oddest little figure.

He was a short, round-bodied, thin-legged little man, with a jerky quality in his motions; he wore a cricket cap, an overcoat, and cycling knickerbockers and stockings. He gesticulated with his hands and arms and jerked his head about and buzzed. He buzzed like something electric. You never heard such buzzing. And ever and again he cleared his throat with a most extraordinary noise.

There had been rain, and that spasmodic walk of his was enhanced by the extreme slipperiness of the footpath. Exactly as he came against the sun he stopped, pulled out a watch, hesitated. Then, with a sort of convulsive gesture, he turned and retreated with every manifestation of haste, no longer gesticulating, but going with ample strides that showed his feet—they were, I remember, grotesquely exaggerated in size by adhesive clay—to the best possible advantage.

This occurred on the first day of my sojourn, when my play-writing energy was at its height, and I regarded the incident simply as an annoying distraction—the waste of five minutes. I returned to my scenario. But when next evening the apparition was repeated with remarkable precision, and again the next evening, and indeed every evening when rain was not falling, concentration upon the scenario became a considerable effort. “Confound the man,” said I; “one would think he was learning to be a marionette!” and for several evenings I cursed him pretty heartily.

Then my annoyance gave way to amazement and curiosity. Why on earth should a man do this thing? On the fourteenth evening I could stand it no longer, and so soon as he appeared I opened the French window, crossed the veranda, and directed myself to the point where he invariably stopped.

He had his watch out as I came up to him. He had a chubby, rubicund face, with reddish-brown eyes—previously I had seen him only against the light. "One moment, sir," said I, as he turned.

He stared. "One moment," he said, "certainly. Or if you wish to speak to me for longer, and it is not asking too much—your moment is up—would it trouble you to accompany me——?"

"Not in the least," said I, placing myself beside him.

"My habits are regular. My time for intercourse limited."

"This, I presume, is your time for exercise?"

"It is. I come here to enjoy the sunset."

"You never look at it."

"Never look at it?"

"No. I've watched you thirteen nights and not once have you looked at the sunset. Not once."

He knitted his brows like one who encounters a problem.

"Well, I enjoy the sunlight—the atmosphere. I go along this path, through that gate"—he jerked his head over his shoulder—"and round——"

"You don't. You never have been. It's all nonsense. There isn't a way. To-night, for instance——"

"Oh! to-night! Let me see. Ah! I just glanced at my watch, saw that I had already been out just three minutes over the precise half-hour, decided there was not time to go round, turned——"

"You always do."

He looked at me, reflected. "Perhaps I do—now I come to think of it. But what was it you wanted to speak to me about?"

"Why—this?"

"This?"

"Yes. Why do you do it? Every night you come making a noise——"

"Making a noise?"

"Like this." I imitated his buzzing noise.

He looked at me and it was evident that the buzzing awakened distaste. "Do I do that?" he asked.

"Every blessed evening."

He stopped dead. He regarded me gravely. "Can it be," he said, "that I have formed a Habit?"

"Well, it looks like it. Doesn't it?"

He pulled down his lower lip between finger and thumb. He regarded a puddle at his feet.

"My mind is much occupied," he said.

"And you want to know *why*? Well, sir, I can assure you that not only do I not know why I do these things, but I did not even know I did them. Come to think, it is just as you say; I never *have* been beyond that field. And these things annoy you?"

For some reason I was beginning to relent toward him. "Not annoy," I said.

"But—imagine yourself writing a play!"

"I couldn't."

"Well, anything that needs concentration."

"Ah," he said, "of course," and meditated. His expression became so eloquent of distress that I relented still more. After all, there *is* a touch of aggression in demanding of a man you don't know, why he hums on a public footpath.

"You see," he said, weakly, "it's a habit. I must stop it."

"But not if it puts you out. After all, I had no business. It's something of a liberty."

"Not at all, sir," he said, "not at all. I am greatly indebted to you. I should guard myself against these things. In future I will. Could I trouble you—once again?—that noise?"

"Something like this," I said—"Zuzzoo, zuzzoo. But really, you know——"

"I am greatly obliged to you. In fact—I know—I am getting absurdly absent-minded. You are quite justified, sir—perfectly justified. Indeed, I am indebted to you. The thing shall end. And now, sir, I have already brought you farther than I should have done."

"I do hope my impertinence——"

"Not at all, sir, not at all."

We regarded each other for a moment. I raised my hat and wished him a good-evening. He responded convulsively, and so we went our ways.

At the stile I looked back at his receding figure. His bearing had changed remarkably; he seemed limp, shrunken. The contrast with his former gesticulating, zuzzooing self took me in some absurd way as pathetic. I watched him out of sight.

Then, wishing very heartily I had kept to my own business, I returned to my bungalow and my play.

The next evening I saw nothing of him, nor the next. But he was very much in my mind, and it had occurred to me that as a sentimental comic character he might serve a useful purpose in the development of my plot. The third day he called.

For a time I was puzzled to think what had brought him—he made indifferent conversation in the most formal way—then abruptly he came to business. He wanted to buy me out of my bungalow.

"You see," he said, "I don't blame you in the least, but you've destroyed a habit and it disorganizes my day. I've walked past here for years—years. No doubt I've hummed—you've made all that impossible!"

I suggested he might try some other direction.

"No. There is no other direction. This is the only one. I've inquired. And now every afternoon at four—I come to a dead wall."

"But, my dear sir, if the thing is so important to you——"

"It's vital! You see I'm—I'm an investigator—I am engaged in a scientific research. I live"—he paused and appeared to think—"just over there," he said, and suddenly pointed dangerously near my eye. "The house with white chimneys you see just over the trees. I am on the point of completing one of the most important demonstrations. I can assure you, one of the most important demonstrations that have ever been made. It requires constant thought, constant mental ease and activity. And the afternoon was my brightest time!—effervescing with new ideas—new points of view."

"But why not come by still?"

"It would be all different. I should be self-conscious. I should think of you at your play—watching me, irritated! No! I must have the bungalow."

I meditated. Naturally I wanted to think the matter over thoroughly before anything decisive was said. I am generally ready enough for business, but in the first place it was not my bungalow, and even if I sold it to him at a good price I might get squeezed about delivery if the current

owner got wind of the transaction, and in the second I was, well—undischarged. Moreover, the possibility of his being in pursuit of some valuable invention also appealed to me as an opening. It occurred to me that I should like to know more of this research. I threw out feelers.

He was quite willing to supply information. Indeed, once he was fairly under way the conversation became a monologue. He talked like a man long pent up, who has had it over with himself again and again. He talked for nearly an hour, and I must confess I found it a pretty stiff bit of listening. During that first interview I gathered very little of the drift of his work. Half his words were technicalities entirely strange to me, and he illustrated one or two points with what he was pleased to call elementary mathematics, computing on an envelope with a copying-ink pencil, in a manner that made it hard even to seem to understand. "Yes," I said. "Yes. Go on!" Nevertheless, I made out enough to convince me that he was no mere crank playing at discoveries. Whatever it was, it was a thing with mechanical possibilities. He told me of a workshed he had, and of three assistants, originally jobbing carpenters, whom he had trained. Now, from the workshed to the patent-office is clearly only one step. He invited me to see these things. I accepted readily, and took care by a remark or so to underline my acceptance. The bungalow remained very conveniently in suspense.

At last he rose to depart, with an apology for the length of his call. Talking over his work was, he said, a pleasure enjoyed only too rarely. It was not often he found such an intelligent listener as myself.

"So much pettiness," he explained, "so much intrigue! And really when one has an idea—a novel, fertilizing, stealable idea——"

I am a man who believes in impulses. I made what was perhaps a rash, and certainly an impudent, proposition. "Why not," said I, "make this your new habit? In the place of the one I spoiled. At least, until we can settle about the bungalow. What you want is to turn over your work in your mind. That you have always done during your afternoon walk. Unfortunately that's over—you can't get things

Drawn by H. Heath.
" 'RADIANT ENERGY,' HE MADE ME UNDERSTAND, WAS ANYTHING LIKE LIGHT OR HEAT OR THOSE RÖNTGEN RAYS THERE WAS SO MUCH TALK ABOUT A YEAR OR SO AGO."



back as they were. But why not come and talk about your work to me—use me as a sort of wall against which you may throw your thoughts and catch them again? It's certain I don't know enough to steal your ideas, and I know no scientific men."

I stopped. He was considering. Evidently the thing attracted him. "But I'm afraid I should bore you," he said.

"Oh, no; you've interested me immensely this afternoon."

"Of course, it *would* be a great help to me. Nothing clears up one's ideas so much as explaining them. Hitherto——"

"My dear sir, say no more."

"But really, can you spare the time?"

"There is no rest like change of occupation."

The affair was over. On my veranda steps he turned. "I am already greatly indebted to you," he said.

I made an interrogative noise.

"You have completely cured me of that ridiculous habit of humming," he explained.

I think I said I was glad to be of any service to him, and he turned away.

Immediately the train of thought that our conversation had suggested must have resumed its sway. His arms began to wave in their former fashion. The faint echo of "zuzzoo" came back to me on the breeze.

Well—after all that was not my affair.

He came the next day, and again the next day after that, and delivered two lectures on physics to our mutual satisfaction. He talked with an air of being extremely lucid about the "ether" and "tubes of force" and "gravitational potential" and things like that, and I sat in my other folding-chair and said "Yes," "Go on," "I follow you," to keep him going. It was tremendously difficult stuff, but I do not think he ever suspected how much I did not understand him. Now and then things gleamed on me clearly for a space, only to vanish just when I thought I had hold of them. Sometimes my attention failed altogether, and I would give it up and sit and stare at him, wondering whether after all it would be better to use him as a central figure in a good farce and let all this ether stuff slide. Then perhaps I would catch on again for a bit.

At the earliest opportunity I went to see his house. It was large and carelessly furnished. There were no servants other than his three assistants, and his dietary and private life were characterized by a philosophical simplicity. He was a water-drinker, a vegetarian, and all those logical, disciplinary things. But the sight of his equipment settled my doubts. It looked like business from cellar to attic—an amazing little place to find in an out-of-the-way village. The ground-floor rooms contained benches and apparatus, the bake-house and scullery boiler had developed into respectable furnaces, dynamos occupied the cellar, and there was a gasometer in the garden. He showed it to me with all the confiding zest of a man who has been living too much alone. His seclusion was overflowing now in an excess of confidence, and I had the good luck to be the recipient.

The three assistants were creditable specimens of the class of "handy men" from which they came—conscientious if unintelligent, strong, civil and willing. One, Spargus, who did the cooking and all the metal work, had been a sailor; a second, Gibbs, was a joiner; and the third was an ex-jobbing-gardener and now general assistant. They were the merest laborers; all the intelligent work was done by Cavor. Theirs was the darkest ignorance compared even with my muddled impression.

I am no scientific expert, and if I were to attempt to set forth in the highly scientific language of Mr. Cavor the aim to which his experiments tended, I am afraid I should confuse not only the reader but myself, and almost certainly I should make some blunder that would bring upon me the mockery of every up-to-date student of mathematical physics in the country. The best thing I can do, therefore, is, I think, to give my impressions in my own inexact language without any attempt to wear a garment of knowledge to which I have no claim.

The object of Mr. Cavor's search was a substance that should be "opaque"—he used some other word I have forgotten, but "opaque" conveys the idea—to "all forms of radiant energy." "Radiant energy," he made me understand, was anything like

light or heat or those Röntgen rays there was so much talk about a year or so ago, or the electric waves of Marconi, or gravitation. All these things, he said, *radiate* out from centers and act on bodies at a distance, whence comes the term "radiant energy." Now, almost all substances are opaque to some form or other of radiant energy. Glass, for example, is transparent to light, but much less so to heat, so that it is useful as a fire-screen; and alum is transparent to light but blocks heat completely. A solution of iodine in carbon bisulphide, on the other hand, completely blocks light, but is quite transparent to heat. It will hide a fire from you, but permit all its warmth to reach you. Metals are not only opaque to light and heat, but also to electrical energy, which passes through both iodine solution and glass almost as though they were not interposed.

Now, all known substances are "transparent" to gravitation. You can use screens of various sorts to cut off the light or heat or electrical influence of the sun, or the warmth of the earth, from anything; you can screen things by metal sheets from Marconi's rays; but nothing will cut off the gravitational attraction of the sun or the gravitational attraction of the earth. Yet why there should be nothing is hard to say. Cavor did not see why such a substance should not exist, and certainly I could not tell him. I had never thought of such a possibility before. He showed me by calculations on paper—which Lord Kelvin, no doubt, or Professor Lodge or Professor Karl Pearson, or any of those great scientific people, might have understood, but which simply reduced me to a hopeless muddle—that not only was such a substance possible, but that it must satisfy certain conditions. It was an amazing piece of reasoning. Much as it amazed and exercised me at the time, it would be impossible to reproduce it here. "Yes," I said to it all, "yes. Go on!" Suffice it for this story that he believed he might be able to manufacture this possible substance opaque to gravitation out of a complicated alloy of metals and something new—a new element, I fancy—called, I believe, *helium*, which was sent to him from London in sealed stone jars. Doubt has been thrown upon this detail, but I am

almost certain it was *helium* he had sent him in sealed stone jars. It was certainly something very gaseous and thin.

If only I had taken notes!

But then how was I to foresee the necessity of taking notes?

Any one with the merest germ of an imagination will understand the extraordinary possibilities of such a substance, and will sympathize a little with the emotion I felt as this understanding emerged from the haze of abstruse phrases in which Cavor expressed himself. Comic relief in a play indeed! It was some time before I would believe that I had interpreted him aright, and I was very careful not to ask questions that would have enabled him to gage the profundity of misunderstanding into which he dropped his daily exposition. But no one reading the story of it here will sympathize fully, because from my barren narrative it will be impossible to gather the strength of my conviction that this astonishing substance was positively going to be made.

I do not recall that I gave my play an hour's consecutive work at any time after my visit to his house. My imagination had other things to do. There seemed no limit to the possibilities of the stuff. Whichever way I tried, I came on miracles and revolutions. For example, if one wanted to lift a weight, however enormous, one had only to get a sheet of this substance beneath it and one might lift it with a straw. My first natural impulse was to apply this principle to guns and ironclads and all the material and methods of war, and from that to shipping, locomotion, building, every conceivable form of human industry. The chance that had brought me into the very birth-chamber of this new time—it was an epoch, no less—was one of those chances that come once in a thousand years. The thing unrolled, it expanded and expanded. I saw a parent company and daughter companies, applications to right of us, applications to left, rings and trusts, privileges and concessions, until one vast, stupendous Cavorite company ran and ruled the world. And I was in it!

I took my line straight away. I knew I was staking everything, but I jumped there and then.

"We're on absolutely the biggest thing

that has ever been invented," I said, and put the accent on "we." "If you want to keep me out of this, you'll have to do it with a gun. I'm coming down to be your fourth laborer to-morrow."

He seemed surprised at my enthusiasm, but not a bit suspicious or hostile. Rather he was self-depreciatory.

He looked at me doubtfully. "But do you really think——?" he said. "And your play! How about that play?"

"It's vanished!" I cried. "My dear sir, don't you see what you've got? Don't you see what you're going to do?"

And positively he didn't! At first I could not believe it. He had not had the beginning of the inkling of an idea! This astonishing little man had been working on purely theoretical grounds the whole time! When he said it was "the most important" research the world had ever seen, he simply meant it squared up so many theories, settled so much that was in doubt; he had troubled no more about the application of the stuff he was going to turn out than if he had been a machine that makes guns. This was a possible substance, and he was going to make it! *V'la tout*, as the Frenchman says.

Beyond that he was childish! If he made it, it would go down to posterity as *Cavorite* or *Cavorine*, and he would be made an F.R.S. and his portrait given away as a scientific worthy with "Nature," and things like that. And that was all he saw! He would have dropped this bombshell into the world as though he had discovered a new species of gnat, if it had not happened that I had come along. And there it would have lain and fizzled!

When I realized this, it was I did the talking and *Cavor* who said "Go on!" I jumped up. I paced the room, gesticulating like a boy of twenty. I tried to make him understand his duties and responsibilities in the matter—*our* duties and responsibilities in the matter. I assured him we might make wealth enough to work any sort of social revolution we fancied; we might own and order the whole world. I told him of companies and patents and the case for secret processes. All these things seemed to take him much as his mathematics had taken me. A look of perplexity came into his ruddy little face. He

stammered something about indifference to wealth, but I brushed all that aside. He had got to be rich and it was no good his stammering. I gave him to understand the sort of man I was, and that I had had very considerable business experience. I did not tell him I was an undischarged bankrupt at the time, because that was temporary, but I think I reconciled my evident poverty with my financial claims. And quite insensibly, in the way such projects grow, the understanding of a *Cavorite* monopoly grew up between us. He was to make the stuff and I was to make the boom.

I stuck like a leech to the "we"—"you" and "I" didn't exist for me.

His idea was that the profits I spoke of might go to endow research, but that of course was a matter we had to settle later. The great point, as I insisted, was to get the thing done.

"Here is a substance," I cried, "no home, no factory, no fortress, no ship, can dare to be without—more universally applicable even than a patent medicine! There isn't a solitary aspect of it, not one of its ten thousand possible uses, that will not make us rich, *Cavor*, beyond the dreams of avarice!"

"No?" he said. "I begin to see. It's extraordinary how one gets new points of view by talking over things!"

"And as it happens, you have just talked to the right man!"

"I suppose no one," he said, "is absolutely *averse* to enormous wealth. Of course, there is one thing——"

He paused. I stood still.

"It is just possible, you know, that we may not be able to make it after all!"

II.

THE FIRST MAKING OF CAVORITE.

But on the 14th of October, 1898, this incredible substance was made.

Oddly enough, it was made at last by accident, when Mr. *Cavor* least expected it. He had fused together a number of metals and certain other things—I wish I knew the particulars now—and he intended to leave the mixture a week and then allow it to cool slowly. Unless he had miscalculated, the last stage in the combination would occur when the stuff sank

to a temperature of sixty degrees Fahrenheit. But it chanced that, unknown to Cavor, dissension had arisen among the men about the furnace-tending. Gibbs, who had previously seen to this, had suddenly attempted to shift it to the man who had been a gardener, on the score that coal was soil, being dug, and therefore could not possibly fall within the province of a joiner; the man who had been a jobbing gardener alleged, however, that coal was a metallic or ore-like substance, let alone that he was cook. But Spargus insisted on Gibbs doing the coaling, seeing that he was a joiner and that coal is notoriously fossil wood. Consequently Gibbs ceased to replenish the furnace and no one else did so, and Cavor was too much immersed in certain interesting problems concerning a Cavorite flying-machine (neglecting the resistance of the air and one or two other points) to perceive that anything was wrong. And the premature birth of his invention took place just as he was coming across the field to my bungalow for our afternoon talk and tea.

I remember the occasion with extreme vividness. The water was boiling and everything was prepared and the sound of his "zuzzoo" had brought me out upon the veranda. His active little figure was black against the autumnal sunset, and to the right the chimneys of his house just rose above a gloriously tinted group of trees. Remoter rose the Wealden Hills, faint and blue, while to the left the hazy marsh spread out spacious and serene. And then——!

The chimneys jerked heavenward, smashing into a string of bricks as they rose, and the roof and a miscellany of furniture followed. Then overtaking them came a huge white flame. The trees about the building swayed and whirled and tore themselves to pieces that sprang toward the flame. My ears were smitten with a clap of thunder that left me deaf on one side for life, and all about me windows smashed unheeded.

I took three steps from the veranda toward Cavor's house, and even as I did so came the wind.

Instantly my coat-tails were over my head and I was progressing in great leaps and bounds, and quite against my will,

toward him. In the same moment the discoverer was seized, whirled about, and shot through the screaming air. I saw one of my chimney-pots hit the ground within six yards of me, leap a score of feet, and so hurry in great strides toward the focus of the disturbance. Cavor, kicking and flapping, came down again, rolled over and over on the ground for a space, struggled up and was lifted and borne forward at an enormous velocity, vanishing at last among the laboring, lashing trees that writhed about his house.

A mass of smoke and ashes and a square of bluish, shining substance rushed up toward the zenith. A large fragment of fencing came sailing past me, dropped edgewise, hit the ground and fell flat, and then the worst was over. The aerial commotion fell swiftly until it was a mere strong gale, and I became once more aware that I had breath and feet. By leaning back against the wind I managed to stop, and could collect such wits as still remained to me.

In that instant the whole face of the world had changed. The tranquil sunset had vanished, the sky was dark with scurrying clouds, everything was flattened and swaying with the gale. I glanced back to see if my bungalow was still, in a general way, standing, then staggered forward toward the trees among which Cavor had vanished and through whose tall and leaf-denuded branches shone the flames of his burning house.

I entered the copse, dashing from one tree to another and clinging to them, and for a space I sought him in vain. Then, amidst a heap of smashed branches and fencing that had banked itself against a portion of his garden wall, I perceived something stir. I made a run for this, but before I reached it a brown object separated itself, rose on two muddy legs and protruded two drooping, bleeding hands. Some tattered ends of garments fluttered out from its middle portion and streamed before the wind.

For a moment I did not recognize this earthy lump, and then I saw that it was Cavor, caked in the mud in which he had rolled. He leaned against the wind, rubbing the dirt from his eyes and mouth.

He extended a muddy lump of hand,

and staggered a pace toward me. His face worked with emotion; little lumps of mud kept falling from it. He looked as damaged and pitiful as any living creature I have ever seen, and his remark, therefore, amazed me exceedingly. "Gratulate me," he gasped; "gratulate me!"

"Congratulate you!" said I. "Good heavens! What for?"

"I've done it."

"You *have*. What on earth caused that explosion?"

A gust of wind blew his words away. I understood him to say that it wasn't an explosion at all. The wind hurled me into collision with him, and we stood clinging to one another.

"Try and get back to my bungalow," I bawled in his ear. He did not hear me, and shouted something about "three martyrs—science," and also something about "not much good." At the time he labored under the impression that his three attendants had perished in the whirlwind. Happily, this was incorrect. Directly he had left for my bungalow, they had gone off to the public house in Lympe, to discuss the question of the furnaces over some trivial refreshment.

I repeated my suggestion of getting back to my bungalow, and this time he understood. We clung arm in arm and started, and managed at last to reach the shelter of as much roof as was left to me. For a space we sat in arm-chairs and panted. All the windows were broken and the lighter articles of furniture were in great disorder, but no irrevocable damage was done. Happily, the kitchen door had stood the pressure upon it, so that all my crockery and cooking materials had survived. The oil-stove was still burning and I put on the water to boil again for tea. And that prepared, I could turn on Cavor for his explanation.

"Quite correct," he insisted; "quite correct. I've done it, and it's all right."

"But——" I protested. "All right! Why, there can't be a rick standing, or a fence or a thatched roof undamaged for twenty miles round."

"It's all right—*really*. I didn't, of course, foresee this little upset. My mind was occupied with another problem——"

"My dear sir," I cried, "don't you see

you've done thousands of pounds' worth of damage?"

"There, I throw myself on your discretion. I'm not a practical man, of course, but don't you think they will regard it as a cyclone——"

"But the explosion——"

"It was *not* an explosion. It's perfectly simple. Only, as I say, I'm apt to overlook these little things. It's that zuzzoo business on a larger scale. Inadvertently I made this substance of mine, this Cavorite, in a thin wide sheet."

He paused. "You are quite clear that the stuff is opaque to gravitation, that it cuts off things from gravitating toward each other?"

"Yes," said I. "Yes?"

"Well, so soon as it reached a temperature of sixty degrees Fahrenheit and the process of its manufacture was complete, the air above it, the portions of roof and ceiling and floor above it, ceased to have weight. I suppose you know—everybody knows nowadays—that, as a usual thing, the air *has* weight, that it presses on everything at the surface of the earth, presses in all directions, with a pressure of fourteen pounds to the inch. You see, over our Cavorite this ceased to be so, the air there ceased to exert pressure, and the air round it, and not over the Cavorite, was exerting a pressure of fourteen pounds to the square inch upon this suddenly weightless air. Ah! you begin to see! The air all about the Cavorite crushed in upon the air above it with irresistible force. The air above the Cavorite was forced upward violently, the air that rushed in to replace it immediately lost weight, ceased to exert any pressure, followed suit, blew the ceiling through and the roof off.

"You perceive," he said, "it formed a sort of atmospheric fountain, a kind of chimney in the atmosphere. And if the Cavorite itself hadn't been loose and so got sucked up the chimney, does it occur to you what would have happened?"

I thought. "I suppose," I said, "the air would be rushing up and up over that infernal piece of stuff now."

"Precisely," he said. "A huge fountain!"

"Spouting into space! Good heavens! Why, it would have squirted all the

atmosphere of the earth away! It would have robbed the world of air! It would have been the death of all mankind! That little lump of stuff!"

"Not exactly into space," said Cavor, "but as good as. It would have whipped the air off the world as one peels a banana, and flung it thousands of miles. It would have dropped back again, of course, but on an asphyxiated world! From our point of view, very little better than if it never came back!"

I stared. As yet I was too amazed to realize how all my expectations had been upset. "What do you mean to do now?" I asked.

"In the first place, if I may borrow a garden trowel I will remove some of this earth with which I am incased, and then, if I may avail myself of your domestic conveniences, I will have a bath. This done, we will converse more at leisure. It will be wise, I think"—he laid a muddy hand on my arm—"if nothing were said of this affair beyond ourselves. I know I have caused great damage—probably even dwelling-houses may be ruined here and there upon the countryside. But on the other hand, I cannot possibly pay for the damage I have done, and if the real cause of this is published it will lead only to heartburning and obstruction of my work. I cannot add the burden of practical considerations to my theorizing. Later on, when you have come in with your practical mind, and Cavorite is floated—floated *is* the word, isn't it?—and it has realized all you anticipate for it, we may set matters right with people. But not now—not now. If no other explanation is offered, people, in the present unsatisfactory state of meteorological science, will ascribe all this to a cyclone; there might be a public subscription, and as my house has collapsed and been burnt I should, in that case, receive a considerable share in the compensation, which would be extremely helpful to the prosecution of our researches. But if it is known that I caused this, there will be no public subscription, and everybody will be put out. Practically, I shall never get a chance of working in peace again. My three assistants may or may not have perished. That is a detail. If they have, it is no great loss; they were

more zealous than able, and this premature event must be largely due to their joint neglect of the furnace. If they have not perished, I doubt if they have the intelligence to explain the affair. They will accept the cyclone story. And if, during the temporary unfitness of my house for occupation, I may lodge in one of the unoccupied rooms of this bungalow of yours——"

He paused and regarded me.

A man of such possibilities, I reflected, is no ordinary guest to entertain.

"Perhaps," said I, rising to my feet, "we had better begin by looking for a trowel," and I led the way to the scattered vestiges of the greenhouse.

And while he was having his bath I considered the entire question alone. It was clear there were drawbacks to Mr. Cavor's society I had not foreseen. The absent-mindedness that had just escaped depopulating the terrestrial globe might at any moment result in other grave inconvenience. On the other hand, I was young, my affairs were in a mess, and I was in just the mood for reckless adventure, with a chance of something good at the end of it. I had quite settled in my mind that I was to have half, at least, in that aspect of the affair. Fortunately I held my bungalow, as I have already explained, on a three years' agreement, without being responsible for repairs, and my furniture, such as there was of it, had been hastily purchased, was unpaid for, insured, and altogether devoid of associations. In the end I decided to keep on with him.

Certainly the aspect of things had changed very greatly. I no longer doubted at all the enormous possibilities of the substance.

We set to work at once to reconstruct his laboratory and proceed with our experiments. Cavor talked more on my level than he had ever done before, when it came to the question of how we should make the stuff next.

Even with my aid we found some little difficulty, and meanwhile we kept at work restoring the laboratory. There was plenty to do, before it was absolutely necessary to decide upon the precise form and method of our second attempt. Our only hitch was the strike of the laborers, who ob-

jected to my activity as a foreman. But that we compromised after two days' delay.

III.

THE BUILDING OF THE SPHERE.

I remember the occasion very distinctly when Cavor thought of the sphere. I fancy now that he must have had intimations of it before, but at the time, it seemed to come to him in a rush. We were returning to the bungalow for tea, and on the way he fell humming. Suddenly he shouted, "That's it!"

"What's it?"

"Space—anywhere! The moon!"

"What do you mean?"

"Mean? Why—it must be a sphere! That's what I mean!"

I saw I was out of it, and for a time I let him talk in his own fashion. I hadn't the ghost of an idea, then, of his drift. But after he had taken tea, he made it clear.

"It's like this," he said. "Last time, I ran this stuff that cuts things off from gravitation into a flat tank with an overlap that held it down. And directly it had cooled and the manufacture was completed, all that uproar happened, nothing above it weighed anything, the air went squirting up, the house squirted up, and if the stuff itself hadn't squirted up, too, I don't know what would have happened! Suppose the substance is loose and quite free to go up?"

"It will go up at once!"

"Exactly. With no more disturbance than firing a big gun."

"But what good will that do?"

"I'm going up with it!"

I put down my tea-cup and stared.

"Imagine a sphere," he explained, "large enough to hold two people and their luggage. It will be made of steel, lined with thick glass; it will contain a proper store of solidified air, concentrated food, water, distilling apparatus and so forth, and enameled, as it were, on the outer steel with——"

"Cavorite?"

"Yes."

"But how will you get inside?"

"That's perfectly easy. An air-tight manhole is all that is needed. That, of course, will have to be a little complicated; there will have to be a valve, so

that things may be thrown out, if necessary, without much loss of air."

"Like Jules Verne's thing in 'A Trip to the Moon'?"

But Cavor was not a reader of fiction.

"I begin to see," I said, slowly. "And you could get in and screw yourself up while the Cavorite was warm, and as soon as it cooled it would become impervious to gravitation, and off you would fly——"

"At a tangent."

"You would go off in a straight line——" I stopped abruptly. "What is to prevent the thing traveling in a straight line into space forever?" I asked. "You're not safe to get anywhere, and if you do—how will you get back?"

"I've thought of that," said Cavor.

"The inner glass sphere can be air-tight and except for the manhole, continuous, and the steel sphere can be made in sections, each section capable of rolling up after the fashion of a roller blind. These can easily be worked by springs, released and checked by electricity conveyed by platinum wires fused through the glass. All that is merely a question of detail. So you see that except for the thickness of the blind rollers, the Cavorite exterior of the sphere will consist of windows, or blinds, whichever you like to call them. Well, when all these windows or blinds are shut, no light, no heat, no gravitation, no radiant energy of any sort, will get at the inside of the sphere; it will fly on through space in a straight line, as you say. But open a window—imagine one of the windows open! Then at once any heavy body that chances to be in that direction will attract us——"

"Oh, I see," I said.

"Practically we shall be able to tack about in space just as we wish. Get attracted by this and that."

"That's clear enough. Only I don't quite see what we shall do it for!"

"Surely! For example; one might go to the moon."

"And when one got there! What would you find?"

"We should see——! Oh! Consider the new knowledge!"

"Is there air there?"

"There may be."

I shook my head. "I don't like this

new development; it's not practical. I'd much rather try some of the other things first."

"They're out of the question—because of the air difficulty."

"Why not apply that idea of spring blinds—Cavorite blinds in strong steel cases—to lifting weights?"

"It wouldn't work," he insisted.

"After all, this is not so much worse, if at all, than a Polar expedition. Men go on Polar expeditions."

"Not business men. It's all very well for you, but unless I'm to be a poor devil all the rest of my days, I shall have to fly round on earth for the next few years."

"Call it prospecting."

"You'll have to call it that." No! I did not like it. All my plans of companies and flotations crumbled into dust. Jumping off the world did not appeal to me; jumping on it was much more to my taste.

"I have no doubt there will be minerals," said Cavor.

"For example?"

"Oh! sulphur, ores, gold perhaps, possibly new elements."

"Cost of carriage," I said; "you know you're *not* a practical man. The moon's a quarter of a million miles away."

"It seems to me it wouldn't cost much to cart any weight anywhere if you packed it in a Cavorite case."

"Delivered free on head of purchaser, eh?" My imagination was recovering.

"It isn't as if we were confined to the moon. There's Mars—clear atmosphere, novel surroundings, exhilarating sense of lightness. It might be pleasant to go there."

"Is there air on Mars?"

"Oh, yes!"

"Seems as though you might run it as a sanitarium. By the way, how far is Mars?"

"Two hundred million miles at present," said Cavor, airily; "and you go close by the sun."

My imagination was picking itself up again. "After all," I said, "there's something in these things. There's travel

preemption" came floating into my head—planetary rights of preemption. I recalled the old Spanish monopoly in American gold. It wasn't as though it was just this planet or that—it was all of them. I stared at Cavor's rubicund face and suddenly my imagination was leaping and dancing. I stood up, I walked up and down; my tongue was loosened.

"I'm beginning to take it in," I said, "I'm beginning to take it in." The transition from doubt to enthusiasm seemed to take scarcely any time at all. "But this is tremendous!" I cried; "this is Imperial! I haven't been dreaming of this sort of thing."

Once the chill of my opposition was removed, his own pent-up excitement had play. He too got up and paced. He too gesticulated and shouted. We behaved like men inspired. We *were* men inspired.

"We'll settle all that!" he said, in answer to some incidental difficulty that had pulled me up. "We'll soon settle all that. We'll start the drawings for moldings this very night."

"We'll start them now," I responded, and we hurried off to the laboratory to begin upon this work forthwith.

I was like a child in wonderland all that night. The dawn found us both still at work; we kept our electric light going heedless of the day. I remember now exactly how those drawings looked—I shaded and tinted while Cavor drew—smudged and haste-marked they were in every line, but wonderfully correct. We got out the orders for the steel blinds and frames we needed from that night's work, and the glass sphere was designed within a week. We gave up our afternoon conversations, and our old routine altogether. We worked, and we slept and ate when we could work no longer for hunger and fatigue. Our enthusiasm infected even our three men, though they had no idea what the sphere was for. Through those days the man Gibbs gave up walking and went everywhere, even across the room, at a sort of fussy run.

And it grew, the sphere. December passed, January—I spent a day with a broom sweeping a path through the snow from bungalow to laboratory—February, March. By the end of March the comple-

Extraordinary possibilities came rushing into my mind. I saw as in a vision the whole solar system threaded with Cavorite liners and spheres de luxe. "Rights of

tion was in sight. In January had come a team of horses, a huge packing-case; we had our thick glass sphere now ready and in position, under the crane we had rigged to sling it into the steel shell. All the bars and blinds of the steel shell—it was not really a spherical shell, but polyhedral, with a roller-blind to each facet—had arrived by February, and the lower half was bolted together. The Cavorite was half made by March, the metallic paste had gone through two of the stages in its manufacture, and we had plastered quite half of it on to the steel bars and blinds. It was astonishing how closely we kept to the lines of Cavor's first inspiration in working out the scheme. When the bolting together of the sphere was finished, he proposed to remove the rough roof of the temporary laboratory in which the work was done and build a furnace about it. So the last stage of Cavorite-making, in which the paste is heated to a dull-red glow in a steam of helium, would be accomplished when it was already on the sphere.

And then we had to discuss and decide what provisions we were to take—compressed foods, concentrated essences, steel cylinders containing reserve oxygen, an arrangement for removing carbonic acid and waste from the air and restoring oxygen by means of sodium peroxide, water condensers, and so forth. I remember the little heap they made in the corner, tins and rolls and boxes—convincingly matter-of-fact. It was a strenuous time, with little chance of thinking. But one day, an odd mood came over me. I had been bricking up the furnace all the morning, and I sat down by these possessions, dead beat. Everything seemed dull and incredible.

"But look here, Cavor," I said. "After all! What's it all for?"

He smiled. "The thing now is to go."

"The moon," I reflected. "But what do you expect? I thought the moon was a dead world."

He shrugged his shoulders.

"What do you expect?"

"We're going to see."

"Are we?" I said, and stared before me.

"You are tired," he remarked. "You'd better take a walk this afternoon."

"No," I said, obstinately; "I'm going to finish this brickwork."

And I did, and insured myself a night of insomnia.

I don't think I have ever had such a night. I had some bad times before my business collapse, but the very worst of those was sweet slumber compared with this infinity of aching wakefulness.

I do not remember thinking at all before that night of the risks we were running. Now they came like that army of specters that once beleaguered Prague, and camped around me. The strangeness of what we were about to do, the unearthliness of it, overwhelmed me. I was like a man awakened out of pleasant dreams to the most horrible surroundings. I lay, eyes wide open, and the sphere seemed to get more flimsy and feeble, and Cavor more unreal and fantastic, and the whole enterprise madder and madder, every moment.

I got out of bed and wandered about. I sat at the window and stared at the immensity of space. Between the stars was the void, the unfathomable darkness——! I tried to recall the fragmentary knowledge of astronomy I had gained in my irregular reading, but it was all too vague to furnish any idea of the things we might expect. At last I got back to bed and snatched some moments of sleep, moments of nightmare rather, in which I fell and fell and fell, forevermore, into the abyss of the sky. I astonished Cavor at breakfast. I told him, shortly, "I'm not coming with you in the sphere."

I met all his protests with a sullen persistence. "The thing's too mad," I said, "and I won't come."

I would not go with him to the laboratory. I fretted about my bungalow for a time, and then took hat and stick and set off alone, I knew not whither. It chanced to be a glorious morning; a warm wind and deep-blue sky, the first green of spring abroad and multitudes of birds singing. I lunched on beef and beer in a little public house near Elham, and started the landlord by remarking, apropos of the weather, "A man who leaves the world when days of this sort are about is a fool!"

"That's what I says when I heerd on it!" said the landlord, and I found that, for one poor soul at least, this world had

proved excessive and there had been a throat-cutting. I went on with a new twist to my thoughts.

In the afternoon I had a pleasant sleep in a sunny place, and went on my way refreshed.

I came to a comfortable-looking inn near Canterbury. It was bright with creepers, and the landlady was a clean old woman and took my eye. I found I had just enough money to pay for my lodging with her. I decided to stop the night there. She was a talkative body, and among many other particulars I learned she had never been to London. "Canterbury's as far as ever I been," she said. "I'm not one of your gadabout sort."

"How would you like to take a trip to the moon?" I cried.

"I never did hold with them balloon-eyes," she said, evidently under the impression that this was a common excursion enough. "I wouldn't go up in one—not for ever so."

This struck me as being funny. After I had supped I sat on a bench by the door of the inn and gossiped with two laborers about brickmaking and motor-cars and the cricket of last year. And in the sky a faint new crescent, blue and vague as a distant Alp, sank westward over the sun. The next day I returned to Cavor. "I am coming," I said. "I've been a little out of order—that's all."

That was the only time I felt any serious doubt of our enterprise. Nerves purely! After that I worked a little more carefully and took a trudge for an hour every day. And at last, save for the heating in the furnace, our labors were at an end.

IV.

INSIDE THE SPHERE.

"Go on," said Cavor, as I sat across the edge of the manhole and looked down into the black interior of the sphere. We two were alone. It was evening, the sun had set and the stillness of the twilight was upon everything.

I drew my other leg inside and slid down the smooth glass to the bottom of the sphere; then turned to take the cans of food and other impedimenta from Cavor. The interior was warm, the thermometer

stood at eighty, and as we should lose little or none of this by radiation, we were dressed in slippers and thin flannels. We had, however, a bundle of thick woolen clothing and several heavy blankets to guard against mischance. By Cavor's direction, I placed the packages, the cylinders of oxygen, and so forth, loosely about my feet, and soon we had everything in. He walked about the roofless shed for a time, seeking anything we had overlooked, and then crawled in after me.

I noted something in his hand.

"What have you there?" I asked.

"Haven't you brought anything to read?"

"Good Lord! No!"

"I forgot to tell you. There are uncertainties— The voyage may last— We may be weeks!"

"But——"

"We shall be floating in this sphere with absolutely no occupation."

"I wish I'd known——"

He peered out of the manhole. "Look!" he said. "There's something there!"

"Is there time?"

"We shall be an hour."

I looked out. It was an old number of "Tit-bits," that one of the men must have brought. Farther away in the corner I saw a torn "Lloyds' News." I scrambled back into the sphere with these things. "What have you got?" I said.

I took the book from his hand and read, "The Works of William Shakespeare."

He colored slightly. "My education has been so purely scientific——" he said, apologetically.

"Never read him?"

"Never."

"You're in for a treat," I said. It's the sort of thing one must say, though as a matter of fact I never read Shakespeare myself—much. I doubt if many people have.

I assisted him to screw in the glass cover of the manhole, and then he pressed a stud to close the corresponding blind in the outer case. The little oblong of twilight vanished. We were in darkness.

For a time neither of us spoke. Although our case would not be impervious to sound, everything was very still. I perceived there was nothing to grip when

the shock of our start should come, and I realized that I should be uncomfortable for want of a chair.

"Why have we no chairs?" I asked.

"I've settled all that," said Cavor.

"We shan't need them."

"Why not?"

"You will see," he said, in the tone of a man who refuses to talk.

I became silent. Suddenly it had come to me, clear and vivid, that I was a fool to be inside that sphere. Even now, I asked myself, is it too late to withdraw? The world outside the sphere, I knew, would be cold and inhospitable enough to me—for weeks I had been living on subsidies from Cavor—but after all, would it be as cold as the infinite zero, as inhospitable as empty space? If it had not been for the appearance of cowardice, I believe that, even then, I should have made him let me out. But I hesitated on that score and hesitated, and grew fretful and angry, and the time passed.

There came a little jerk, a noise like champagne being uncorked in another room, and a faint whistling sound. For just one instant I had a sense of enormous tension, a transient conviction that my feet were pressing downward with a force of countless tons. It lasted for an infinitesimal time.

But it stirred me to action. "Cavor!" I said into the darkness, "my nerve's in rags. I don't think——"

I stopped. He made no answer.

"Confound it!" I cried; "I'm a fool! What business have I here? I'm not coming, Cavor. The thing's too risky. I'm getting out."

"You can't," he said.

"Can't! We'll soon see about that!"

He made no answer for ten seconds.

"It's too late for us to quarrel now, Bedford," he said. "That little jerk was the start. Already we are flying as swiftly as a bullet up into the gulf of space."

"I——" I said, and then it didn't seem to matter what happened. For a time I was, as it were, stunned. I had nothing to say. It was just as if I had never heard of this idea of leaving the world before. Then I perceived an unaccountable change in my bodily sensations. It was a feeling

of lightness, of unreality. I heard a click, and a little glow-lamp came into being.

I saw Cavor's face, as white as I felt my own to be. We regarded one another in silence. The transparent blackness of the glass behind him made him seem as though he floated in a void.

"Well, we're committed," I said, at last.

"Yes," he said, "we're committed."

"Don't move," he exclaimed, at some suggestion of a gesture. "Let your muscles keep quite lax—as if you were in bed. We are in a little universe of our own. Look at those things!"

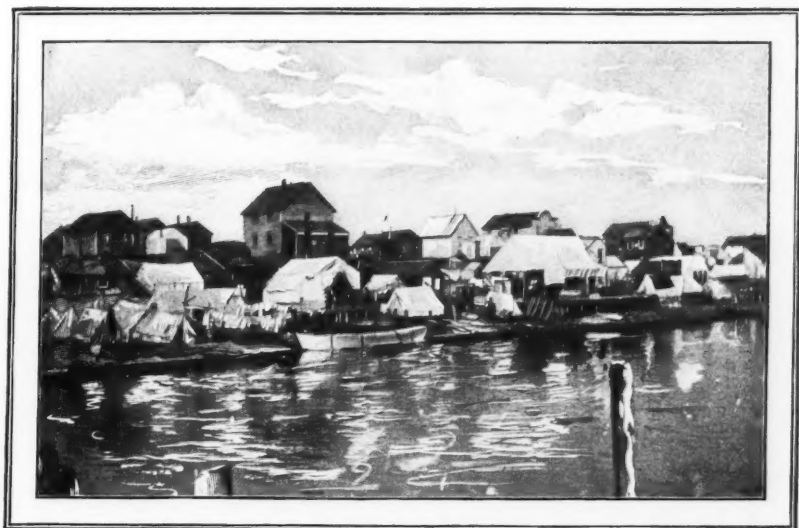
He pointed to the loose cases and bundles that had been lying on the blankets in the bottom of the sphere. I was astonished to see that they were floating now nearly a foot from the spherical wall. Then I saw from his shadow that Cavor was no longer leaning against the glass. I thrust out my hand behind me and found that I too was suspended in space, clear of the glass.

I did not cry out or gesticulate, but fear came upon me. It was like being held and lifted by something—you know not what. The mere touch of my hand against the glass moved me rapidly. I understood what had happened but that did not prevent my being afraid. We were cut off from all exterior gravitation—only the attraction of objects within our sphere had effect. Consequently everything that was not fixed to the glass was falling—slowly because of the slowness of our masses—toward the center of gravity of our little world, to the center of our sphere.

"We must turn round," said Cavor, "and float back to back, with the things between us."

It was the strangest sensation conceivable, floating thus loosely in space—at first, indeed, horribly strange, but when the horror passed, not disagreeable at all, exceedingly restful; indeed, the nearest thing in earthly experience to it that I know is lying on a very thick soft feather-bed. But the quality of utter detachment and independence! I had not reckoned on things like this. I had expected a violent jerk at starting, a giddy sense of speed. Instead I felt—as if I were disembodied. It was not like the beginning of a journey; it was like the beginning of a dream.

(To be continued.)



NOME CITY FROM SNAKE RIVER.

A WOMAN'S EXPERIENCE AT CAPE NOME.

BY ELEANOR B. CALDWELL.



A NOME HOSTELRY.

WE left Washington, D. C.—my daughter and I—on May 11, 1900, our destination Cape Nome, our object a fortune. We started with brave feelings, yet I read in my diary: "Washington looked like a paradise as I passed along the streets."

Practical preparations for the trip were not made until Seattle was reached, thirteen days before the departure of the "Tacoma" for the latest Mecca of the fortune-hunter. Of course, we had to take our own roof-tree, household gods and food. Our purpose was firm to start as little burdened as possible. A tent, a stove, some chairs and a couple of tables seemed oppressive possessions indeed when all was collected and measured for disposal in the too limited space of the steamer's interior. It was not easy to procure anything in the

overtaxed and tired city, but the acquisition of a stove was a special and difficult problem of itself. A discouraging sign was conspicuously displayed in the shops, "No more orders taken for Alaska." The process by which I became the owner of the coveted article was a lengthy one; feminine arts and cajolery were not entirely left out of consideration; failure seemed imminent, when, lo! my pressing needs above all other Nome travelers were recognized, and I had the satisfaction of seeing my treasure, filled with nuts, safely stowed in the "Tacoma's" hold. The order for grocer's supplies was not large, as I should have no place for storage.

At four in the morning of May 31st, the steamer glided from the Seattle wharf. The passenger-list was unique in the history of Arctic travel, for one hundred of the gentler sex were betaking themselves, for one reason or another—one was a professional gambler—to the City of the Golden Sands. The best-represented profession was that of the sick-nurse—young women starting out to relieve suffering in a cold-ridden, congested community, where



A "SAMPLE-ROOM."

as a matter of course the most unsanitary conditions must prevail. It must be confessed that few had come to strike claims.

There were some women, tempted by the comfortable journey, accompanying husbands just for fun, and some to open restaurants and hotels. They were there, however, and the steamship officers didn't seem to know quite what to do with them. No stewardess had been provided, and all service was rendered by the hashers—translated, the men working their way as waiters.

In a week we were cutting the smooth gray waters of Bering Sea. Many of the passengers were now laid up with terrific colds. Starland had been left behind; even through the heavy fog that had settled around us the clear daylight filtered at every hour of the twenty-four. Huge icebergs became our *compagnons de voyage*, monsters looming up on all quarters. Sunday, June 10th, dawned bright and beautiful after a snow-storm the day before. We found ourselves in other company than the icebergs. There was a boat ahead—the "Aberdeen," as she proved—black with passengers and heavy-laden. Then together the "Aberdeen" and the

"Tacoma" struggled for an entrance into Norton Sound. Thicker and thicker pressed the flocs as we struck shallow water. Every one was on the qui vive and expected something to happen, and perhaps this is why when it did come there was not much excitement. But that evening signals of distress were flying from our vessel—we had struck, and remained on bottom.

For three days we stayed on the Yukon flats. On the second, passengers and crew found diversion in heaving overboard coal worth seventy dollars a ton at Nome. Three hundred tons of the precious carbon went to lighten ship for the highest tide of six months, which was due the next day. With the rising tide next morning the passengers were gathered in the bow. They had an important duty to perform—to rush from side to side to help the motion of the boat. That they were equal to the occasion was soon evident, for with steady motion the ship churned its way into deep water.

At 6 p.m. that lucky June 13th, Nome was sighted, and eight hours later we dropped anchor a mile and a half from shore. In the west the orange-hued full moon was just leaving the horizon, and back of the thickly tented stretch of beach to the eastward were snow-capped peaks



TYPICAL NOME CABIN.

from behind which the sun, gone too short a while to let darkness fall on the land, was just peeping.

The scene beckoned us, but the captain spoke of "lighters" that must be awaited. This situation when once understood was not an agreeable one for impatient folk to face. Every day, steamers, cargo-laden and bearing from three to eight hundred people, came to anchor in front of the town, and to await one's turn for lighterage meant an unendurable delay, so by four o'clock a party had chartered a boat and were put on shore for two dollars and a half a head.

One street ran the length of the curious canvas metropolis, but even its communal rights were not respected, for at one point, quite in the center, an enterprising merchant had pitched a tent and was offering his wares. Naturally we first looked for a spot which we could call our own. The prospect appeared hopeless. There seemed not a square inch on which we could put the little tent that would come ashore that afternoon. The beach for five miles was completely covered. Back of this, a plain of spongy tundra stretching to the base of the mountains presented a uniform and thick floor of mud.



A DOG-TEAM.

It was quite uninhabitable, but even so, impossible, for it was all somebody's "claim." Legally or illegally, every foot of the land had an owner. Most of the original claims had been jumped. For this there was no redress. Possession was nine points of the law, the tenth had resolved itself into a question of skill in pistol practice. Many an original claimant has returned from the States with an outfit to find his land in other hands, and no use for his expensive machinery but to let it rust upon the beach. There was no court to settle claim disputes.

And still, penniless but hopeful, men were digging holes ten feet deep that brought but "a fraction" for their pains; for the truth is—the sands contain very little gold. Even as long ago as last spring the more hopeful and stout-hearted had turned their eyes to Port Clarence, thirty miles to the north. Truth about Nome is just now coming out.

From our impression of Nome City, we looked to our first meal with apprehension. We sought it in a restaurant, and were served with a thin, tough steak, potatoes, poor bread and poor coffee, for two dollars apiece. We soon learned that all the money was being made in saloons,



HARD AT WORK.



UNLOADING A FREIGHT LIGHTER.

restaurants and lodging-houses. Contrary to usual conditions, the presence of a drinking-saloon raised the value of all property around it. One small eating-house, twelve by twenty feet, rented for seventy-five dollars a day, a large element in this rent being the fact of its juxtaposition to the finest saloon in town.

The gambling-houses, as is unusual in such places, were not flourishing. The reason—there was little cash in circulation. Gold-dust, too, was scarce, and what there was had been brought from Dawson.

The industrial class was undoubtedly making money. Labor brought one to two dollars per hour. Good cooks could command ten dollars a day. A freight lighter made a thousand dollars a day easily. Provisions, of course, were very high—bread twenty-five cents a loaf and poor at that; butter one dollar a pound; chickens four dollars each. Eggs at fifty cents a dozen seemed remarkably cheap. It may be noticed here that ham and eggs three times a day was the average fare of the Nomite.

The street was alive with people; there was a din of traffic, and loud cries of "Mushon!" ("Go ahead!")

were constantly addressed to the Eskimo dogs, while "Gangway!" was hurled at the loitering pedestrian. Such "chu-chaka" (tenderfeet) as we, held by the strange sights and novelty of the scene, became a serious obstacle to progress, and we accepted the name as gracefully as possible.

I was walking a little in the rear of the party at one point, when suddenly I was seized and drawn between two tents. Surprise had not had time to give way to stronger feeling when, "Ping!" a bullet



ALASKAN DOGS USED FOR HAULING.



ROCKING OUT GOLD.

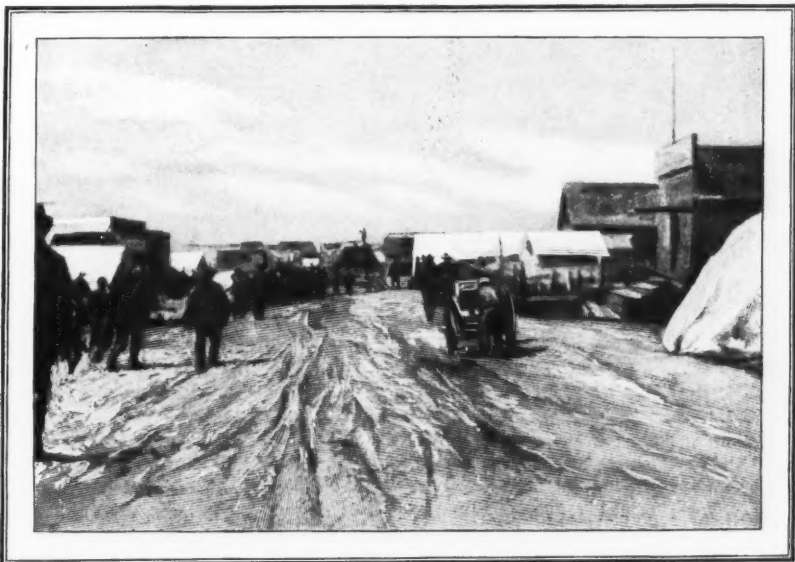
went past the spot where I had been standing. I saw that a strange man had hold of me, and he lifted his hat. "I saved you from that," he explained. "The settling of a little dispute," he continued, in response to my questioning. "But you are as safe here as on Fifth Avenue, New York; any man would come forward to the protection of a lady."

Still, one's presence out of the trajectory

of a bullet is not always a matter that can be arranged for on the spur of the moment. "Going gunning," as they term it, was a popular diversion at Nome. One might see the results of this sport at any turn.

But all this time the consciousness was becoming more pressing that we had no roof for our heads, and it was well along in the afternoon. We repaired to the beach to watch for our freight. Every conceivable article, from huge mining machinery to hen-coops, was strewn pellmell upon the sands; yet the freight agents worked wonders in getting order from chaos. Most of the material was simply stored there, in danger of destruction by the sea if a storm should come.

Perched on trunks, we watched in vain until ten o'clock, when we were directed to the Hotel Casco, a small frame building of one full story and a sloping roof for a second. Here, in a large room under the roof, slowly filling with rough men and negroes, we were, in company with two other women, given a shake-down—a skin thrown upon the floor—for one dollar a head. Yet we thankfully rolled our wraps into pillows and lay down. We had no sense of fear, for the white light of day was



MAIN STREET.

always there. The room was never quiet; men were constantly tramping through to the proprietor's office boarded off at the front. The constant daylight had disarranged any methodical apportionment of the twenty-four hours. Men worked, slept and ate as fancy dictated.

On our rising in the morning, true hospitality was shown us in the gift of some water in which to wash. Water sells at Nome three buckets for twenty-five cents.

Now came days of anxious watching for the possessions that the lighters failed to yield up. They were, in fact, quite the

prepared for any of the hardships we saw around us. None of these could dampen the hope and expectation that had drawn us hither. But there are some things that even the most careful of calculators is apt to neglect. The variety of possibilities is infinite. No one ever realized this better than I did when it was known that smallpox had broken out in camp. Some forty passengers of a plague-stricken ship, condemned to quarantine, had escaped to the shore, bringing the pestilence with them. By the next morning the danger had grown. There were more serious problems for me



FREIGHT PILED UPON THE BEACH.

last things taken from the "Tacoma." A second night was spent upon the skins of the Hotel Casco. Then two nurses, fellow voyagers, offered a part of their tent. Here we stayed for one night, when the steamship agents, in pity, curtained a portion of their own large tent for our use.

In a week we had our things, but they were never taken from the beach. For ten days we sought one little spot that had been overlooked, but none could be discovered. We had not the slightest idea of giving up. Accustomed as we had become to the rough state of affairs, we were

to face than the mere risk of taking the disease, of which I had little fear; the prospect of being quarantined all winter at Nome was fast becoming a certainty. This I could not afford. That day the "Tacoma" was reported returned from Penny River. By night my mind was made up. We took passage, sold our outfit at a slight loss, and within twenty-four hours had left that wild life with its perils, and its prospects which, as the world now knows, have nearly reached the vanishing-point. As we sailed south into the Pacific, dearly familiar seemed the night and the stars.

A PROBLEM IN ARMY TRANSPORTATION.

BY CAPT. ARCHIBALD WILLINGHAM BUTT, U. S. V.

A LITTLE over two years ago, the Quartermaster's Department was confronted with the problem of transporting horses across the Pacific. At that time it was not thought probable that they could be landed alive. Less than eight months ago it was thought to be impossible to transport them that distance without unloading them on some of the mid-Pacific islands. The question of transportation of horses and mules was, to say the least, an experiment.

But, to make warfare in the Philippines effective, it was determined to make that experiment. Cavalry could follow the insurgents where the infantry was useless, and in order to pursue and break up the army of the insurgents it was deemed necessary to land horses at any cost.

That horses would stand the climate, was not believed. It was exceedingly doubtful, in the minds of many experts, whether or not mules would live more than a few months.

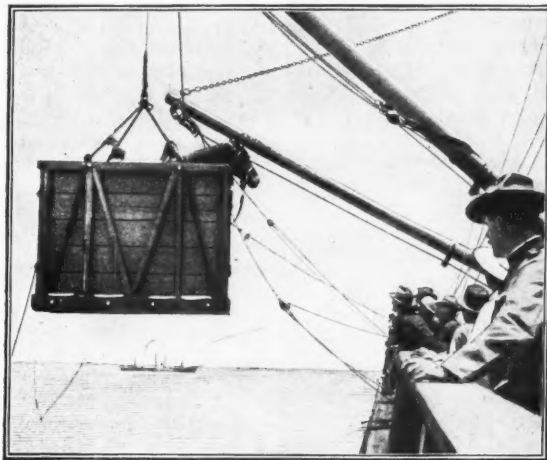
Not only, however, has the problem been met and solved by the Quartermaster's Department, but it has recently been demonstrated that animals which are not unloaded en route stand the sea voyage better and reach their destination in a stronger con-



IN THE CAMARINES. SWIMMING HORSES TO SHORE, A MILE DISTANT.

dition than those which undergo the additional fatigue of being hoisted out of the hatches and subjected to the varying climatic conditions of the islands in the mid-Pacific. It has been successfully demonstrated not only that horses and mules can be transported to the Philippines, but also that a majority of them arrive there in a better condition than they were in when loaded on the western coast of the United States. Having reached the Philippines, experience has shown, they stand the climate as well as they do that of our Southern and South-western States, and the mules thrive better than they do in the more varying temperatures to be found in America.

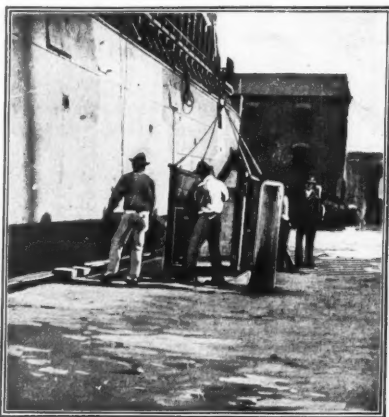
Next to our splendid



UNLOADING HORSES INTO THE WATER BY MEANS OF THE PORTABLE STALL.

equipment of the men in the field, and the hardness of the individual soldier, nothing has done more to impress the natives with the uselessness of their warfare than the spirited-looking horses used for cavalry mount, and the mules and pack-trains which are now to be seen in nearly every town in the archipelago. In Manila itself the native stands awe-stricken as the army wagons, drawn by four gray mules, rattle over the cobblestones in the metropolis.

The present success of transporting pack-mules and cavalry horses has not been reached without many disasters, and oftentimes much loss. This was only natural and to be expected. It was a problem that had never confronted the authorities at Washington to any great extent in the past, and had never been solved even by those governments who from time immemorial have carried on colonial wars. There was no literature which might throw any light on the subject, and no experience which could be taken as a guide. The Quartermaster's Department undertook to grapple with the difficulties, and has so far surmounted them as to make its experiment the basis for all future transportation of animals, no matter at how great a distance, and without consideration of climatic conditions. Never again need

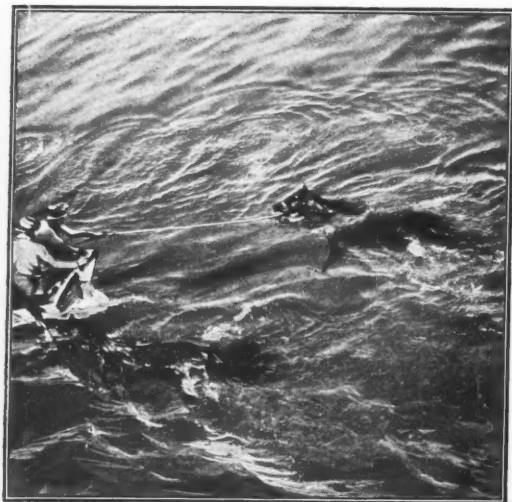


LOADING THE ANIMALS AT PORTLAND, OREGON.

a nation hesitate to send along with its advance-guard an equal force of horses, or ask the question, "Can a horse stand on his legs forty days and land alive?"

The losses which have been suffered were due, not to the length of the voyage, but to the means employed, in the past and at the beginning of the experiment, to lessen the burden of the trip for the animals. It was a mistaken caution which prompted the authorities to sling the animals for the purpose of resting them. The

invention looked practical on its face and every argument seemed to be in its favor. It employed a piece of canvas cut so as to fit under the stomach of the animal, its four corners caught up with strings and tied so that when the horse should become tired from standing (his natural position) he could give way on his legs and sleep very much, it was thought, as a sailor might in a hammock. It was harmless-looking, but more deadly than a dozen ordinary typhoons, certainly more disastrous than an average storm, to the life of the stock aboard. Not only was the animal slung in this fashion, but immediately under his breast was placed a board, better known as the breastplate. This was re-



HORSES OF THE ELEVENTH CAVALRY SWIMMING A MILE TO THE SHORE.

garded as necessary to keep the animal from being thrown headlong out of the stall in rough weather, possibly from dashing his brains out in the hatchway below. Thus was every precaution adopted and means taken to make the journey for the animal as easy as possible. Nature was curbed and the rights of the animal were ignored. An ordinary study of horses on a stock-farm would convince any one that animals seldom lie down, and then not to sleep. The natural position of the horse is upright, and freedom in the movement of his body is all that he requires. He gets this freedom in an eight-by-three-foot stall, and can be as comfortable there as he can in a ten-acre field. Nothing

is more cruel than slinging the horse and attempting to hold him in position by means of a breastplate. Every time the ship rocks, the animal is thrown against the rear of the stall, and on the return motion strikes his breast against the

bar which was ordained for his comfort. In consequence he tries to get his legs, but is prevented from doing so by the slings, which lift him from his feet at the slightest motion of the vessel. The animals become frightened and panic-stricken. Some begin to kick violently, and many have, in their frantic efforts to escape from the devices of man, turned somersaults and been killed in the lower deck. All have their chests rubbed raw and their tails scraped to the bone.

Be it said to the credit of the authorities, however, that no sooner did they begin to receive the reports on the slings, which they had adopted with hesitation,

than they countenanced their disuse, and now leave the matter largely to the discretion of the Quartermaster commanding the transport. As a result of experience, the loss is being daily lowered. The Quartermaster's Department has now brought the transportation of horses to such a degree of perfection that the average loss on a voyage does not amount to three per cent. Nearly all governments transporting animals count on a loss of fifteen per cent, and commercial shippers even at a short distance expect a loss much greater than is now being experienced by the government. A year ago, a Quartermaster who had lost only thirty animals out of five hundred was considered to be doing excellent work,

and he would be warmly congratulated should he lose less than fifteen. To lose more than ten now puts the official mind out of humor, while a loss of five hardly calls for a personal compliment.

The result is prodigious when figures are



A COMMON SIGHT ON THE STREETS OF MANILA TO-DAY.

taken into account. There are now on the islands in good condition some six thousand horses and upward of five thousand mules.

As the first to try the experiment of crossing the Pacific without unloading the stock, I had experience that may be of some value. Out of four hundred and fifty-six horses only one was lost, that one dying from a fractured bone and not from disease. This record, unbroken up to the present time, was due largely to the fact that slings and breastplates were discarded, and that the same method of handling horses was adopted as would be used in private stables or in the transportation

of animals for commercial reasons and not for the government. The horses, in the first place, were strong and well chosen, having been purchased in Oregon and Washington by Captain Wainwright, one of the best judges of horseflesh in the United States Army. They were carefully selected, and for a month or more cared for with the utmost skill by Colonel Jacobs, the Chief Quartermaster at Vancouver barracks, near Portland. The transport on which they were loaded had no superstructure and every animal was below deck. In order to get fresh air to them, electric and steam fans were put in the transport, and canvas windsails dropped through the hatchways. They were loaded by means of portable stalls, which is far more injurious than loading them by means of runways. Owing to the peculiar construction of the transport, runways were found to be impracticable, and each horse was led into the stall, hoisted in mid-air, and finally lowered, much to the relief of the frightened animal, into the hold of the ship. There were slings provided, but none was used, and in place of the breastplates the horses were tied with ropes long enough to give them three feet leeway from the stall. For the first two days the animals were restless, but encountering a heavy swell when fairly out to sea they became quieted and seemed to fix their attention upon the best means of riding with the movement of the vessel. After six hours of rough weather, the animals worked together as if built of uniform machinery. They moved backward and forward with the regularity of a pendulum, not one losing his footing, nor any becoming frightened at the rocking of the ship. Portable troughs were provided for feeding purposes, but none of these was used, the oats and hay being laid on the floor about two feet in front of the animal.

The condition of the animal largely depends upon careful attention, though there are certain well-defined regulations which if followed will produce satisfactory results in the transportation of horses. There should be a foreman and an assistant foreman to every hundred head of horses or mules. There should be, and there usually is, one teamster to every twenty animals during the day. These teamsters

water, feed and groom the animals under their care, and each day clean out the stalls. The care of the animals at night presents greater difficulties. They require the strictest watching throughout the long hours from dark to sunrise. Accustomed to sleep standing, they soon get in the habit of sleeping while the ship is in motion or rolling. Some sleep so soundly that they lose their balance and fall. I have seen an animal fall on his knees without waking up, and sleep thus for an hour. Often, however, in falling they become tangled in the halter, and unless discovered and released at once they may strangle themselves and die from suffocation. It is the exception when a horse falls, but it is the exceptional case which mars many a record in the transportation of animals. Often at night an animal in the midships or in the extreme fore or aft becomes overheated. When discovered, he is led out in the hatchway or put directly in front of an electric fan. During the daytime animals suffering from excessive heat are easily discernible, but constant guard duty is required at night. In order to meet the requirements of the night watch, four men are detailed for each hundred horses. They make the rounds every fifteen minutes. In addition to this, the veterinary makes an inspection at ten, twelve and three o'clock.

The matter of feeding is arbitrary, and no two Quartermasters follow the same system. Very few, however, give the animals the full quota of hay and oats allowed by army regulations. The government allowance is fourteen pounds of hay and twelve pounds of oats per day for the horse, and fourteen pounds of hay and nine pounds of oats for the mule. Experience has shown that this is far too much for the horse or mule while at sea, and that if he is fed in these proportions he will invariably be the result. I have found that the best results are obtainable from the following system of feeding: Water at six o'clock in the morning, and an hour later four pounds of oats. Experience has convinced me that it is better not to feed hay in the daytime. The animals get nothing more to eat during the morning hours. They are watered again at four in the afternoon, and at five they are fed

four pounds of oats. At six o'clock eight pounds of hay is laid on the floor before each animal, all of which is invariably eaten up before watering-time the next morning. In addition to this, a handful of salt should be fed each animal every other day. It is a good rule to feed a little salt every day to the animal for about a week before loading. This gets him in a good condition for the trip.

The usual route taken by transports carrying horses is what is known as the Southern Route. It runs across the Pacific twenty-one degrees north of the equator, which is only two degrees south of the

Tropic of Cancer. So the entire route from Portland, Oregon, to Manila, a distance of seven thousand three hundred and six miles to all intents, lies in the tropics. This is the track laid down by the government. It was chosen for several reasons, one being that in case of accident or

breakdown to one transport, it would in all likelihood be sighted by the next transport crossing. Then, too, coming west over this route the transports meet the northwest trade-winds, which follow them to the China Sea. This route, while smoother than the Northern, or, as it is called, the "Great Circle Route," is also hotter and longer, but the Quartermaster's Department has found from experience that less loss of life occurs over this track than over the one farther north, which sweeps into the China Sea from the coast of Japan.

After the first four days at sea, the horses on the transport began to improve so rapidly that by the time they reached Hilo, where I was supposed to unload them, I had determined to push on, thus trying the experiment of crossing the Pacific without stopping. Even while we were taking on water in this beautiful little city on the island of Hawaii, the animals remained in their stalls—becoming a little restless, however, during the last day. But as soon as the ship started on its course again and began to roll a few degrees, the animals brightened up, improved in appetite, and showed in still other ways

that they suffered less when at sea than when lying at anchor. The animals were on board just forty-three days, and, as stated above, when they left the transport weighed seventy-five to a hundred and fifty pounds each more than when they were loaded in Portland.

The stock, upon the arrival of the



ONLY MODE OF TRANSPORTATION IN THE PHILIPPINES A YEAR AGO.

transport in Manila Bay, is unloaded into small steamers and conveyed to the corral. The latter is well chosen, facing the sea on one side and extending upon the Pasig River for about a mile on another.

The loading and unloading of transports is directly under the charge of Capt. J. C. Byron, Master of Water Transportation, while the corral is under the command of Lieutenant Kossman. As each animal transport arrives, the horses and mules are unloaded and without bridle are turned loose in the corral. They are allowed to roll and run at will for a week

or two, when they are put in the hands of the blacksmiths. After being shod, they are groomed and carefully fed and watered for a fortnight or more.

As soon as a horse transport is unloaded, it is at once reloaded with horses which have been rested and groomed in the corral, and sent to the various ports in the archipelago. The greatest difficulty in distributing animals throughout the islands arises from the fact that very few of the ports are surveyed, and none, with the exception of Iloilo, Cebu, and possibly a few other large towns, has any wharfage or lighterage at all. The southern Camarines, especially, present difficulties which are overcome only with patience and hard work. The districts of the Camarines comprise all the southern part of the island of Luzon, and are connected with the northern districts only by a narrow neck of land some eight or ten miles wide. As yet, no trail or road of any kind has been discovered by which cavalry or infantry can go from one district to the other on land. The problem of reducing the Camarines still confronts the authorities at Manila.

It was my good fortune to accompany the first cavalry expedition into this section. The Eleventh Cavalry was chosen for the work, and it was sent under the command of Colonel Lockett. It was the first mounted force sent into the south. The troops were landed at various points, going overland into the interior. The hardship attending the disembarking of such an expedition will be readily imagined when it is known that all the animals in the squadron were unloaded in the water, and the greater majority of them had to swim over a mile to reach the shore. The horses and mules could easily have swum twice that distance, but the hardship fell to the troopers of the Eleventh, who had to tow each animal ashore by means of life-boats belonging to the transport. Six soldiers were detailed to a boat, and each boat could tow two animals. As the horse was lowered into the water, there was a man to pull the bolt and another to open the door of the portable stall. Two hatchways were worked at a time, and after taking the first animal the boat was rowed to a second hatchway, where another animal waited to take the plunge. At the

port of Pasacao, the nearest seaport to General Bell's headquarters, over six hundred horses and mules were unloaded, besides the supplies and property necessary for the expedition. The transport lay a mile from shore, and the entire expedition was transferred to the land in life-boats oared by the soldiers. The men were allowed to row only for an hour, when they would be relieved and other details placed in the boats. At Legaspi, and other ports where cavalry was unloaded, much of the work had to be done through the surf. The Eleventh Cavalry was divided: two squadrons, under the command of Colonel Lockett, being placed at Nueva Caceres, an interior city and the largest in the Camarines; the remainder, under Lieutenant-Colonel Starr, former inspector on the staff of General Lawton, having its base of supplies at Lagao. This cavalry is now sweeping through the Camarines just as it did through the northern district, and wherever the Eleventh Horse appears, peace follows.

As a rule, there is little destruction of property accompanying a cavalry expedition. The squadrons are used to chase the rebels, and often prevent the latter from burning the towns as they leave. The mounted force comes suddenly to a city before the insurgent forces are apprised of its approach, and little time is given the latter either to drive out of the city the noncombatants or to set fire to the nepea homes. The policy established by General Otis, to protect but not to destroy, is faithfully carried out in the Camarines, and wherever the natives are given the chance to witness the practical side of protection, permanent peace is invariably the result. All the natives ask is that when their homes are once protected, some sort of guarantee will be given that they will continue to be. They fear the wrath of the insurgents, and the robber bands which infest the mountains, far more than they do the American forces. Once they feel assured of permanent occupation and protection, the problem is to a large extent solved. Nothing has done more to insure this protection than the American horse, which to a great extent eliminates distances and brings the outlying towns into close proximity to the military posts.

THE LAST OF THE SMUGGLERS.

BY S. R. CROCKETT.

I HAD been so long away from my own country that when I looked out once more upon the heather at the little wayside station of Dornal, on the Port Murdoch line, the width and space about me, the loneliness of the hills, and the crying of the moor-fowl, affected me almost to tears. It was not long, however, before I had other things to think about.

I had long been an orphan, and, indeed (to tell the truth), had not felt much the worse for it. My father and mother died when I was a boy at school, and the uncle who brought me up and put me into his own business in England must have taken some permanent distaste to his native country of Galloway. At any rate, he never revisited it, nor, for that matter, encouraged me to do so. Nevertheless, he gave me an excellent education, and trained me well to his own profession of architect and building contractor, with the idea that I should succeed him in Highgate when he should wish to retire to the pretty house he had built for himself on the shores of one of the most beautiful of English lakes.

But, quite suddenly one morning, when I was twenty-four, my uncle was found dead in his bed, and I, Hal Grierson, came into immediate possession of a good business and a very considerable sum in money.

Among other things in my uncle's safe, I found a large number of letters, receipts for money, and private memoranda. From these I learned for the first time that I had a relative living of whom I had never so much as heard. My deceased uncle, Walter Arrol, was, of course, my mother's brother, and a man singularly reticent in all things not pertaining to business. Still, it struck me as strange and in a way humorous that as a young man of twenty-four I should come first to the knowledge that I had a grandfather still living. Yet, after many perusals and reperusals of the letters and memoranda, I could come to no other conclusion.

It was now the middle of December, and so lately as the month before, there was a

letter dated from the "Cothouse of Curlywee." It ran as follows:

"DEAR SON: Herewith I inclose bank-bill for twenty-five pounds. We have had a good back-end and are well. Please acknowledge receipt.

"Your affectionate father,

"JOHN ARROL."

I laughed aloud when I came upon the letter. It seemed to me that it was rather late to add a live grandfather to my family connections. Then the "we" puzzled me. Had I an unknown grandmother too—or several unacknowledged uncles? At any rate, my curiosity was highly excited.

But so far as correspondence went, I found no clue. My uncle had never encouraged sentiment, and though there were many similar notes, dating at half-yearly intervals for nearly fifteen years back, his "affectionate father" never got beyond the simple and perspicuous statement that it had been a "good" or a "bad" year, that the "lambs were doing fine" or that "there were many daiths among the yowes." I discovered, however, that fifteen years before, Walter Arrol had bought a little moorland property in Galloway which had then come into the market. He paid what, with my knowledge of English prices, seemed to me a ridiculously inadequate price, for the five or six thousand acres it was stated to comprise.

The title-deeds were there, all in due order, and the receipt for taxation; stamps and lawyers' charges. There was also the memorandum of a loan of a thousand pounds to "John Arrol, my father, to stock the farm of Curlywee with black-faced sheep," together with notes of payment of interest at four per cent for the first five years. After that I could trace no further receipts on that account.

It was just the day before Christmas that I set out from a Midland town where I had had some business, resolved to find out all that I did not know about my Gal-

loway relatives. I might easily have written, indeed, either to "John Arrol" himself, who from his style of correspondence would have been the very man to give me exact (and concise) information, or to the firm of lawyers in Cairn Edward whose name was upon the deeds and parchments.

But, though it would have ruined me from a business point of view had it been known in Highgate, I have always had a romantic strain in my blood, and the little adventure pleased me. I would take a little climb, so I told myself, into the branches of my family tree. I would go in person to the Cothouse of Curlywee, and make the acquaintance of my grandfather.

I wondered if "John Arrol" would turn out to be as ignorant of my existence as I had been of his. At any rate, he was clearly not a person to waste words or squander his sentiment broadcast. Had I been content to prove my title to my uncle's property, he would doubtless have continued to sign himself "John Arrol," to inclose his half-yearly rent, and to require a receipt therefor, to the end of the chapter, without making the least effort to cultivate my acquaintance.

So this was the errand upon which I found myself standing in the little wayside station of Dornal. It was a grim and grayish winter afternoon, and I had occupied myself in speculating, as the train slowly struggled up the incline, how long this rough, bouldery desolation was to continue, and at what point it would issue forth upon the level strath and kindly hamlets of men, where I had pictured to myself my venerable relative residing in patriarchal dignity.

"Can you show me the way to the village of Curlywee?" I said to the station-master, who came suddenly out of his office to take my ticket. In fact, he made a dash at me almost like a terrier at a rat.

"The what?" he said, sharply, dropping his official manner in his surprise. "The village of Curlywee?"

The station-master laughed a short, quick laugh; almost as one would expect the aforesaid terrier to do in mirthful mood. He turned about on the pivot of one heel.

"Rob," he cried, sharply, "come ye here!"

"I canna come! I'm at the lamps—

foul fa' them—the oil they hae sent us this time will no burn ony mair than as muckle spring-water!"

"Come here, I tell ye, Rob—or I'll report ye!"

"Report awa'—an' be——!" Something that I did not catch.

The station-master did not further attempt to bring his official dignity to bear upon his recalcitrant subordinate. He tried another tack.

"There's a man out here wants to ken the road to the village of Curlywee!"

And as he spoke, the little wiry station-master glanced quizzically up at me, as much as to say, "That will fetch him!"

I failed to see the humor—then.

Immediately I heard a bouncing sound. Heavy feet trampled in the unseen lamp-room, a stool was knocked over, and a great, broad, jovial-faced man came out, still rubbing a lamp globe with a most unclean piece of waste.

"The village of Curlywee?" he inquired, smiling broadly at me, as it were from head to foot. "Did I understand ye to say the village o' Curlywee?"

I nodded brusquely. I was growing vexed.

"I never heard tell o't," he continued, slowly, still smiling and shaking his head.

"Is there not a conveyance—an omnibus, or a trap of any kind—which I can hire to take me there?"

I was getting more than a little angry by this time. It seemed past belief that I should have come so far to be laughed at by a couple of boors in the middle of a Galloway morass.

"Ow, aye, there's a conveyance," said the porter, "a pair o' them!"

"Then," said I, tartly, "be good enough to put my bag in one of them, and let me get off!"

The big man continued to rub and grin.

The station-master watched me as a terrier watches a rat-hole, with his gray birse of a head at the side.

Then with the piece of dirty waste in his hand "Rob" pointed to my knickerbockered legs and brown leather shoes.

"Thae's the only conveyance ye'll get to Curlywee if ye wait a month at the Dornal!"

"What," I cried, "is there no road?

There surely must be some kind of a highway."

Again the waste rag pointed. It waved like a banner across the bleak moorish wilderness upon which the twilight was settling gray.

"Road?" he cried, gleefully, "highway? Aye, there's the hillside—just the plain hillside!"

He waved me an introduction to it, like a master of ceremonies.

"Enough of this!" I said, tartly. "I have come from London——"

"So I see by your ticket. It's a fine big place—London!" interjected the station-master, with the air of one about to begin an interesting conversation.

"To see a gentleman in the neighborhood, of the name of Arrol, who lives at Curlywee. I would be obliged to you if you would point out to me the best and quickest way of reaching his house!"

The men looked at each other. There was nothing like a broad grin on the big man's face now. The station-master, also, had lost his alert and amused air, and had become suddenly thoughtful.

As neither of the two spoke, I added, still more sharply, "Do you know the gentleman?"

"Ow, aye," said Rob; "we ken the man!"

"Well, be good enough to put me on the road to his house!"

Rob of the lamp and rag turned slowly, as one of my own cranes turns with a heavy load of stone. His arm pointed out over the thin bars of shining steel of the railroad track.

"Yonder!" he said. "Keep straucht up the gully till ye come to yon nick in the hill. Then turn to the left for three or four mile through the Dead Man's Hollow. Syne ye will come to a water; and if ye can get across, haud up the face of the gairy, and gin ye dinna break your neck by faain' until the Dungeon o' Buchan or droon yoursel' in the Cooran Lane, ye will see the Cothouse o' Curlywee richt afore your nose!"

It was not an appetizing description, but anything was better than staying there to be laughed at, so I thanked the man, asking him to put my bag in the left luggage office, and proffered him a shilling.

The big man looked at the coin in my fingers. "What's this for?" he said.

"To pay the ticket for the left luggage," I said; "and the rest for yourself!"

Slowly he shook his head. "There's no sic a thing nearer than Cairn Edward as a left luggage office," he said, "but I'll put the bit bag in the lamp-room. It'll be there if ever ye want it again!"

"What do you mean?" I cried, furiously. "Do you know that I am——!"

"I mean," said Rob, deliberately, "that ye are like to hae a saft walk and to need a' your daylight before ye get to Curlywee this night. A guid pair o' legs to ye! Ye will need them!"

Upon the details of that weary and terrible journey I need not linger. Though when at first I threw my leg over the wire fencing of the railway and stepped out on the moor, the instinct of the heather seemed to come back to me, I lost my way at least half a dozen times. Indeed, if the moon had not been shining about half-full behind the gray veil of cloud, I must have wandered all night without remedy, and most likely frozen to death. My London-made single-soled shoes were soon completely sodden, and presently the uppers began to part company with the welt. I was wet to the waist, or above it, by falling into deep moss-holes, where the black, peaty water oozed through the softest of verdurous green.

I was bruised by constant stumbles over unseen boulders, and scratched as to my hands by slipping on icy rocks. A thousand times I cursed myself for leaving my comfortable rooms, which looked over to Hampstead Heath. I might have been reading a volume of "Rob Roy," with my feet one on each side of the mantelpiece. And—at that very moment my foot plunged through the heather into a deep crevasse between two boulders, and I wrenched my ankle sidewise with a stound of pain keen as a knife.

By this time I had been six or seven hours on the moor. I had, to the best of my ability, endeavored to steer the course set for me by the big-boned genius of the lamp-room. I possessed a little compass at my watch-chain, and my profession had made me accustomed enough to using

it. But in the gray, uncertain light the glens seemed to turn all the wrong way, and what the "face of the gairy" might be I had not the least idea. I only knew that at the moment when I sprained my ankle I had been descending a hillside as lonely as an African desert and apparently as remote from anywhere as the North Pole.

I managed, however, by an effort to get my leg out of the trap into which I had fallen, and sat down upon a rock, half dazed with the shock. I remember that I moaned a little with the pain and started at the sound, not realizing that I had been making it myself.

When I came round a little, I was looking down into a kind of misty valley. The ground appeared to fall away on every side, and I could see shadowy and ghostlike forms of boulders all about me, some standing erect like Breton menhirs, pointing stony fingers into the gray winter sky; some with noses sharpened took the exact shape of polar bears scenting a prey, as you may see them in the plates of my favorite Arctic explorer.

Gradually it dawned upon me there was some sort of a light beneath me in the valley. It seemed most like a red, pulsing glow, as if a nearly extinct smithy fire were being blown up with bellows. A sense of eeriness came over me. I had been educated by my uncle in a severe school of practicality. To be a contracting builder in the better-class suburbs of London is destructive of romance. But I have the Pictish blood in me for all that. Aboriginal terrors prickle in my blood as I pass a graveyard at midnight, and never when I can help it do I go under one of my own ladders. But now for the first time in my life I felt a kind of stiffening of the hair of my scalp.

But this did not last long. My foot and ankle recalled me to myself. I could not, I thought, be worse off than I was—wet, miserable, hurt. If that light beneath me betokened a human habitation in the wild, I was saved. If not—well, I was no worse than I had been before.

So, with a certain amount of confidence, I made shift to limp downward toward the strange, pulsing, undulating glow. But though the sweat ran from me like rain, I

could go only a few yards at a time. Nevertheless, the ruddy eye grew ever plainer as I descended, winking slowly and irregularly, waxing and waning like a fire permitted to go low and then again replenished.

At last I was near enough to see that the light proceeded from beneath a great face of rock which sprang upward into the sky, so high that it faded ghostlike into the milky glow of the mist-choked moonlight. Just then my injured foot jarred painfully upon a stone which gave beneath its thrust. The loose boulder thundered away down the declivity, and with a cry I sank upon my hands and knees.

When I came to myself, I could not speak. Something had been thrust into my mouth, something that gagged and almost choked me. My hands also were tied behind me. The red, pulsing glow had vanished, but between me and the faintly lit gray sky I could see a tall dark figure which moved purposefully about. Presently I found myself dragged to my feet and thrust rudely forward. I tried to make my captor understand that I could not walk; but as I could not speak, I could do this only by lying down and utterly refusing to proceed. Then my captor drew a lantern from behind a heather bush and flashed it upon my face.

As he did so, I held up my foot and endeavored by sign to show where and how it was hurt. But I was utterly unprepared for what my captor did next. He took me by the arms and laid me over his shoulders, pulling the plaid which he wore about my body as a kind of supporting belt. Then with slow, steady strides he began to descend the hill. I suffered agonies lest we should both fall, and my ankle pained me till I nearly wept with sheer agony.

At last, with a fling of his foot, my captor threw aside a door, stepped down a short ladder, and I found myself stretched upon some straw. Then a candle was lit, and the flame, sinking to nothing and rising again, presently illuminated a little barn half filled with sheaves and fodder. Upon a heap of the latter I was lying, with my head away from the door.

"So," said he who had brought me, "I hae catched ye, sirrah!"

I saw my man now—a tall old patriarch with abundant grizzled hair, his face clean-shaven and having a fringe of gray beard beneath the chin. His expression was stern, even fierce, and the eyes, under bushy eyebrows that were still raven-black, looked out undimmed by years and unsoftened by pity. It was a medieval, almost a savage countenance; even so, I thought, might Rob Roy himself have looked in his wilder moments. I had to recur to my wounded foot to convince myself that I had left a nineteenth-century railway-station less than ten hours before.

Was it possible that this was the reason why my uncle did not visit his Galloway tenants? And did this one wish to square a deficiency in his rent by making an end of his landlord?

But the old man did not offer to touch me again, not even to release me from my bonds. He simply threw a few empty corn-sacks over me, removed my gag, picked up the lantern and went out with these words, "Bide ye there, my man, till I am ready for you!"

But whether he went to dig my grave or take his supper I could not make out; though the speculation was not without some elements of interest. At any rate, he locked the door behind him, and I was left alone in the black, blank darkness of the barn.

It was poor enough cheer, and I began to shiver with the cold of the moss-hags in my bones. Whether that exercise helped to loosen the bonds about my wrists I know not—perhaps they were hastily tied. At any rate, it was not long before I had my hands loose. Then I could take the knotted handkerchief with its short cross-knuckle of bog-oak out of my mouth. But I could do no more to make myself easy. My foot and ankle were already terribly painful, and the litter, as I could feel with my hand, had swollen almost to double its usual size.

After that I cannot tell very well what happened for some time. It may seem impossible, but I think that I slept—at least, certain it is that the night passed somehow, between dozing and shivering. Hot flushes passed over me, with wafts of that terrible feeling of "falling away" which precedes fever.

When I awoke in the morning, it seemed that I saw a young girl sitting opposite to me on the edge of an overturned bushel measure. She had her chin in the hollow of her palm. Yet my head was so whirled about with the trouble which was on me that I could not be sure, till she rose and came close to me with a pitying look in her eyes. Then I tried to think of something to say to her which might explain who I was, and how I came thither. For I began to be sure there had been some mistake. However, I could think of nothing but what day it was. So I said to her as she approached, in the most commonplace way possible, "I wish you a merry Christmas."

Yet all the time I knew very well that I was making a consummate fool of myself. The girl seemed checked at my words. She stopped, and then, touched perhaps by the ridiculous anomaly of my appearance and my commonplace greeting, she burst into a ringing peal of laughter. I think I laughed too, a little, but I am not sure. When next I came to myself, I was being supported upon clouds, or down, or at least by something equally pleasant and soft, whereat I opened my eyes, and there was the girl, bending over me and trying to get some hot liquid down my throat out of a long, thin-stemmed glass.

As soon as she saw that I was conscious, she said, "Are you the excise officer from Port Mary who has been watching my great-uncle?"

"No," said I, "my name is Henry Grierson; I come from London. Where am I?"

But she sat up with a face of great horror.

"Not the exciseman? Why, you are never Hal Grierson—my cousin?"

"That is my name," I said, steadied by the situation. "I came to look for a grandfather I never knew I possessed till a week or two ago! His name is John Arrol, and he lives at the Cothouse of Curlywee!"

The girl smiled a little.

"This is the Cothouse of Curlywee, and my great-uncle mistook you for a gager—an exciseman. It is a mercy he did not kill you! But wait! I will bring him. He will be sorry!"

By this time I had forgotten the pain

in my head, and I was none so eager for the presence of my terrible relative.

"Please wait a moment. I want to ask your name," I said, looking up at her.

"My name is Elsa Arrol," she answered frankly, and in a cultivated manner. "My father used to live here during the last years of his life, and when he died I had to leave school in Edinburgh and come to Curlywee to keep house for my great-uncle!"

"Then you are my cousin?" I said, with some eagerness.

"Yes, a cousin of a sort, not a first cousin!"

And even then I was glad, somehow, of so much kinship.

"Will you shake hands with your new cousin before you go?" I said.

"I will do better," she answered, fluttering down from the edge of the corn-mow where she had seated herself. "This is Christmas Day, and the cobwebs on the roof will serve for mistletoe!"

And soft as a snowflake I was aware of a waft of perfumed air; and something, that might have been a butterfly and might have been a pair of lips, alighted to my forehead for a moment.

"There! You will think I am a bold madam, but you are ill, and deserve a better greeting than a handshake after what you have gone through."

Again I was left alone; but not for long. I saw the fierce old man again in the doorway, his brow still gloomy, though it was no longer angry.

"This lass tells me you are not the Port Mary gager," he said, with a hard accent; "that you come from London. Is this true?"

"It is," said I, briefly. For I thought of the knuckle of bog-oak between my jaws.

"Then what might you be doing on my hill at midnight of a winter's night?"

"Well," I returned, with some point, "it is in a way my hill also. At least, if it be a part of the property of Curlywee, left me by my uncle, the late Walter Arrol, of Highgate."

"What!" he cried, a little hoarsely, "ye are never my Annie's boy—wee Harry Grierson?"

"The same!" I said, still curtly, for I

wanted to see how he would extricate himself. He stood frowning awhile, and stripping the piles from a head of corn.

"Ye will not misunderstand me if I confess that I am grieved for what has happened," he said, with a certain stern and manifest dignity of bearing which became him. "I am sorry, not because ye are now my landlord and I your tenant and debtor, but because I have made a mistake and showed but poor hospitality to the wayfaring man!"

"Say no more about it," I answered, "but give me a bed to lie down on and a pillow for my head, for I am very ill."

The old man lifted me in his arms like a child and carried me into his own room, where he laid me down. Then with a skill, patience and tenderness I could not have believed possible, he undressed me and laid me on his own bed. When this was done, he called Elsa, and she brought hot water to bathe my swollen ankle, now in girth well-nigh as thick as my thigh. He said not a word more about his rough treatment of me, nor did he mention his son, my late uncle, nor yet the quarrel which had separated them in life.

All that strange Christmas Day I was light-headed, and these two gave me brews of a certain herb-tea, famed in Galloway as a febrifuge. I dozed off, waking to find my cousin Elsa still unweariedly pouring hot water over my foot, or coming in with a new poultice of marshmallow leaves in her hands. I suppose I must have talked a great deal of nonsense. Indeed, Elsa told me afterward that I made a great many very personal remarks upon her eyes and hair, which made her blush for shame before her great-uncle.

I found myself somewhat better, however, the next morning, and was able to join in the exercise of family worship, which my grandfather conducted at great length, reading two or three chapters of names and genealogies out of the historical books of the Old Testament, in a loud, harsh voice, as if he had a spite against them. Then, reverently laying the great Bible aside, he stood up to pray. I noticed that as he did so he smoothed his gray badger's brush of hair down on top as if it were a part of the ceremony.

When he had finished praying, my grand-

father stood awhile, and then sat down beside me.

"Elsa," he said, "will you betake yourself to the kitchen for a space? I have something to say to this young man that is only for a man and a kinsman to hear."

My cousin obediently vanished. I never heard so light a footfall.

"Now, sir," said the old man, "you have been brought up in another school, and may misunderstand. But I must e'en tak' the risk of that. Did your uncle give you any religious training?"

"He never mentioned the subject to me, sir," I said. For my uncle, though a good man, had been neither church-goer nor church-lover.

"Are you a true Presbyterian then? Or are ye one of the worshipers of the Scarlet Woman that sitteth upon the Seven Hills?"

"I have not really thought much about it," I replied. "I am a Christian—I believe I may say that—though indeed I have no claims to be thought better than my neighbors—indeed, the contrary!"

"Then," said the old man, frowning, "I fear ye are no better than a heathen man and a publican."

"But," I cried, "was there not One born this Christmas Day who was partial to the company of publicans and sinners?"

I thought I had him there, but he evaded me.

"That is in the New Testament!" he retorted, somewhat disparagingly. "You will not understand, but listen. I am an old Cameronian, as my fathers were before me. No one of us has ever owned an uncovenanted King. Arrols not a few have gone to prison and to judgment because we wouldn't bow the knee to tyranny in the land and prelacy in the kirk. I had never paid a King's cess or tax till the law distrained upon my goods. And I have continued to bake my bread and brew my drink as my fathers did before me. And who shall say me nay? Not any gager that ever tapped a barrel!"

I certainly had no intention of doing so, but all the same it seemed a curious thing to have smuggling and illicit distilling thus put, as it were, upon a religious basis.

The old man continued:

"Therefore it was that I mistook ye for the spy of the Queen's Excise. I had watched the puir craitur nosing about the hilltops for a day or two. I fear I used you somewhat roughly in my haste. For that I ask your pardon."

I hastened to assure him that I never bore a grudge. He thrust out his hand at the word.

"No more do I," he said; quickly adding, however, "that is, no after it is satisfied!"

It was thus that I spent my Christmas Day in the Cothouse of Curlywee. It was three weeks more before I could leave my chair, and a month before I was able to return south to business. So that it was well my uncle had left competent men in charge.

During this time, not at all unnaturally, I saw a good deal of my cousin. I thought her every day more charming, as she certainly grew more beautiful. As for my grandfather, he used to lie out upon the brae-faces with a long spy-glass, looking for the "exciseman from Port Mary." But that gentleman showed the excellence of his judgment by obstinately staying away.

When at last I set out over the moor toward the station, I rode upon a strong sheltie.

Elsa came with me part of the way, to "convoy me off the ground," as she said.

At our parting-place I asked her a certain question, which at first she refused to answer directly. Afterward she stated that she had conscientious scruples about the marriage of cousins and other near relatives. However, I am not without the strongest reasons for hoping that these objections are not insuperable, and that they will be overcome by next year. Already I have observed tokens of wavering.

But in any case, we will not tell my grandfather till the last moment, for where he will get a housekeeper to dwell alone in the Cothouse of Curlywee is more than either of us can tell. Meanwhile, I am grateful for all that my search for a grandfather has brought me, and still more for what it promises to bring.



COURT OF AN ENGLISH COACHING INN.

Ernest C. Peixotto
Illustrator

THE LITTLE INNS OF FRANCE AND ENGLAND.

BY ERNEST C. PEIXOTTO.

Illustrated by the author.

THE coming of the cycle and the automobile has of late worked a great change in the country inn, and the demand for good ones has largely increased. Hostelties which, prosperous in the days of the stage-coaches, had been left isolated by the railroads, after years of decay have again blossomed into a second life. In America the country hotel leaves everything to be desired. A year ago it

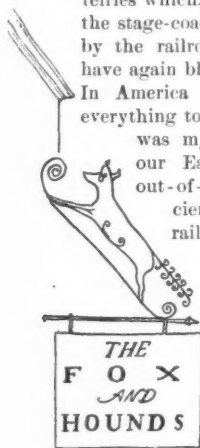
was my duty to travel through our Eastern States, frequenting out-of-the-way places, all sufficiently old to antedate the railroad. I remember but few oases in the desert of hotels—one in the Mohawk Valley, one on the Brandywine, one in Virginia.

This year I have wandered in France and England, and the pleasure of travel has been doubled by satisfactory hotel accommodations.

Who shall deny the comfort of a good inn? Is it not more than half the pleasure of traveling, after a weary day of sight-seeing, to rest and dine at a cheerful board? Scattered through the small pro-

vincial towns of France, I know of many such wayside hotels whose very existence beckons an invitation as the spring approaches. Though the unpretending exterior may not be inviting, do not hesitate to cross the threshold and enter the court, where the plants and flowers always bloom, where small round tables and comfortable chairs are the usual accessories, inviting you to be seated and to rest. If you are known to him, Monsieur advances smilingly to greet you and Madame behind him echoes his "Comme je suis contente de vous voir!" Monsieur's big hand is stretched forth in welcome and his fat, good-humored rotundity gives assurance of the good cheer within. Célestine—now isn't that name enough to give delight?—Célestine, the dark-eyed bonne, her soft black ringlets clustering round her merry face, will take your bags and show you to Number 19 or 6, or 10 perhaps; very few rooms will be occupied, and it will be a choice between a corner chamber or one with a balcony on the square. Give me the balcony on the square, with its views of the old town climbing up the hillside and the big château above!

Soon the bell, hung in a gable in the



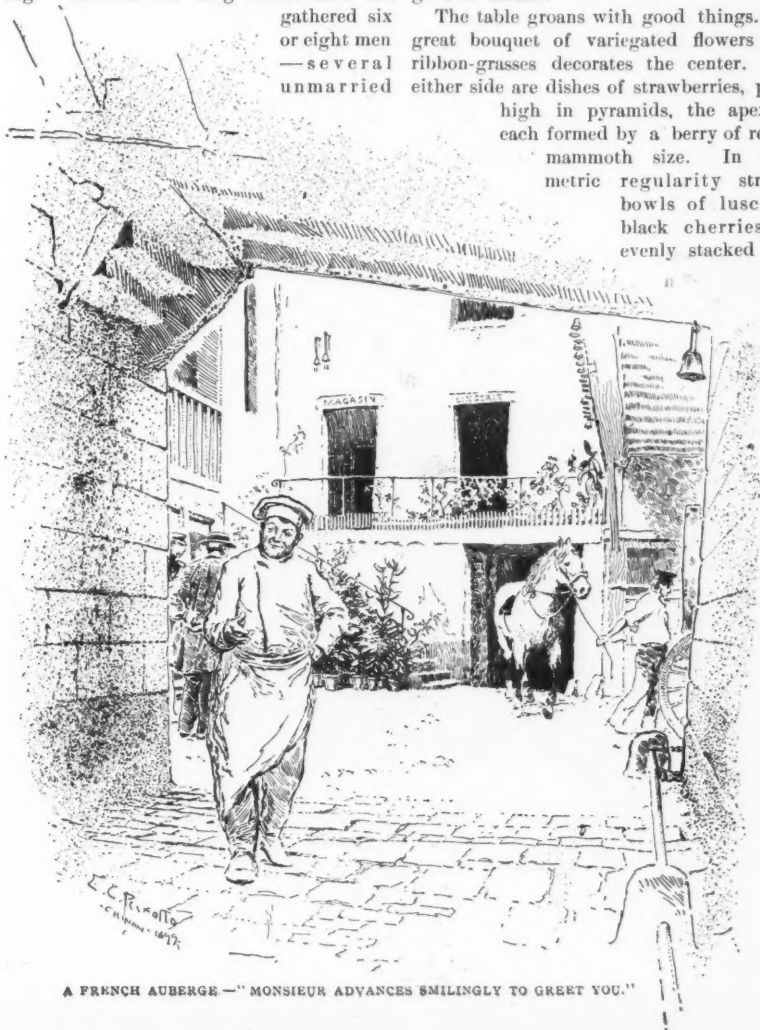
court, is ringing its gladsome note and we know that dinner is ready. As we pass the kitchen, with its brave array of copper pots, Monsieur, in dazzling white, wishes us "Bon appétit."

The dining-room is low, and dark in tone, a few old prints upon its walls, an Empire clock and the inevitable candelabra on the mantel-shelf. The windows are open, and the mull curtains gently move in the soft stir of the summer evening. Around the long center-table are

gathered six
or eight men
—several
unmarried

bourgeois of the town, the sous-chef at the post-office, the police commissioner, and a retired army captain, this a real bon viveur, red-cheeked and blustery, his buttonhole decorated with the red ribbon of the Legion of Honor.

The table groans with good things. A great bouquet of variegated flowers and ribbon-grasses decorates the center. On either side are dishes of strawberries, piled high in pyramids, the apex of each formed by a berry of really mammoth size. In geometric regularity stretch bowls of luscious black cherries, of evenly stacked bis-



A FRENCH AUBERGE.—"MONSIEUR ADVANCES SMILINGLY TO GREET YOU."



cuits known to us as lady-fingers—of fresh cream-cheeses made of goats' milk, while the Roquefort reposes under a shining glass cover. At each place is a quart bottle of red or white wine, the delicious light wine of the country. Louis the garçon bids us be seated at a side-table. We unfold our napkins deliberately. There seems

no need to hasten. We are quite content to spend an hour at table. The dinner is good; after the soup, a fish, then perhaps a civet de lièvre, artichoke hearts, asparagus; then Louis whispers, "Caneton aux petits pois"—ah, we live well in France!

Louis is stout, has long Dundreary whiskers, and his salt-and-pepper hair is parted down to the nape of his neck. Louis will probably wear a flower in his buttonhole. Though past fifty, he has a sweetheart, who comes to the fountain before the hotel—whence the daily flower. They have a chat as she draws her pails of water. It may mean a rendezvous by the river, where the village band plays at night. I have spied his whiskers and her white cap as they pass under the flickering oil-lamps that dimly light the way.

All breathes content in this inn! Célestine, the black-eyed maid, has been here since her childhood. Although the blacksmith has proposed for her hand—and he is no mean man in the village—and other brave country lads have been won by her merry smiles, still she is "sage." But I saw quickly how the wind blew. Pierre, the boy who carries the trunks and fills the lamps and blacks the boots, Pierre, who is called upon to do ten

things at once, has won this bright-eyed maiden. There is no task for Célestine that Pierre does not lighten, save perhaps mending the linen, and even then he passes through the court every five minutes just to brush against her gown; and the parrot climbing on his perch in the corner screams, "Célestine—Célestine—Pier-r-re!"

Not so gay is the English inn.

To us the very word "inn" seems to promise good cheer and comfort. Comfort in England, however, usually means cleanliness and a good bed; of cheer there is none. The evenings pass wearily. The bar is a cold-blooded place, filled with tobacco smoke and political arguments. The proverbial barmaid has cheeks that are too red and hair that is really too blond. The coffee-room is the only other refuge, and it is occupied by a stately matron with her novel, or two young ladies talking in undertones in the corner. One is really afraid to smile. The center-

YORK Four Days Stage-Coach.

Begins on Friday the 12th. of April 1706.

ALL that are desirous to pass from London to York, or from York to London, or any other Place on that Road; Let them Repair to the Black Swan in Holbourn in London, and to the Black Swan in Coney-freet in York.

At both which Places, they may be received in a Stage Coach every Monday, Wednesday and Friday, which performs the whole Journey in Four Days, (if God permits.) And sets forth at Five in the Morning.

And returns from York to Stamford in two days, and from Stamford by Huntington to London in two days more. And the like Stages on their return.

Allowing each Passenger 10s. in stipend, and all above get a Penny.

Performed By { Benjamin Kingman,
Henry Harrison,
Walter Bayne.

Also this gives Notice that Newcastle Stage Coach, sets out from York, every Monday, and Friday, and from Newcastle every Monday and Friday.

Receives in pl. 05 cc. 00 of Mr. Bodings for 3 p. l. for Monday the 3 of June 1706

AN EIGHTEENTH-CENTURY COACH NOTICE.



"THE KITCHEN WITH
ITS BRAVE ARRAY
OF COPPER."

table is adorned with a Bible, the "Sportsman's Magazine" and Burke's Peerage.

Still, these conservative inns are certainly quaint and interesting. They are in many cases extremely ancient. Many still retain their old signboards—replete with memories of bygone days: The Falcon, the Stirrup-Cup, the Bird-in-Hand, the Woolsack, the Boar's Head, or, as we approach the sea, the Eight Bells, the Mermaid, the Anchor. Under each sign is the legend: "Licensed to sell by retail Beer, Spirits, and Wines, to be drunk on the premises, and Dealers in Tobacco."

A reproduction is here given of the announcement of the four-day coach which ran between London and York. In the latter place we stopped at the old Black

Swan in Coney Street, proudly bearing on its façade the inscription, "Under the patronage of H. R. H. The Prince of Wales."

It is a fine specimen of an old English provincial hotel, stiff and rigid, but really too large to come into the class of which I am speaking. Huntingdon is one of the stops alluded to in the document, and still



"THESE CONSERVATIVE INNS ARE CERTAINLY QUAIN AND INTERESTING."

retains the old George Inn at which the coach put up for the night and relayed its horses. The entrance is a low carriage-arch giving access to a paved court, large and roomy, and connected with a still larger one in which are the stables and "loose boxes"—stalls for the putting up of travelers' horses. Around the main court are the various public rooms, the kitchen and laundry.

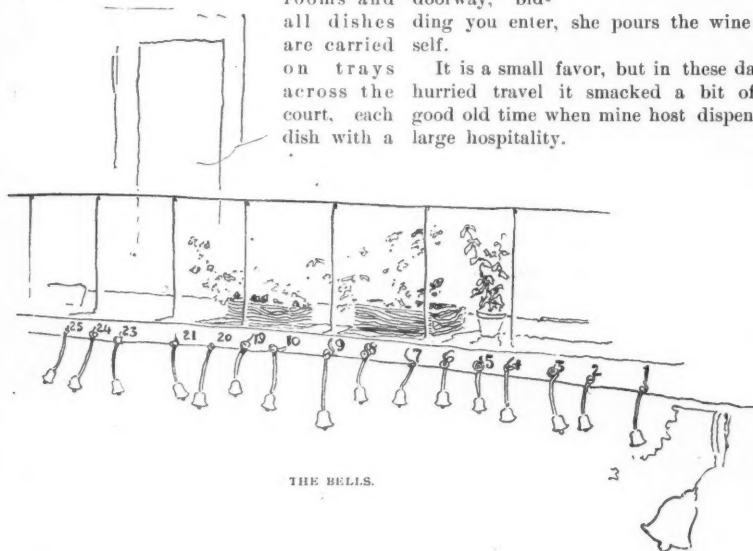
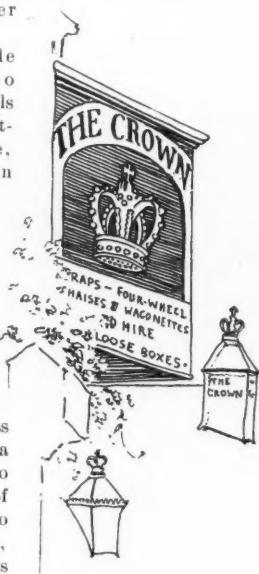
Accommodations at these inns are arranged in three classes (everything in England is in classes): sitting-room, coffee-room and commercial-room service. If the wayfarer be a mere traveling salesman, he pays for his commercial-room service; if ladies are of the party, we dine in the coffee-room, a shade more comfortable in its appointments, and the three courses at dinner are reinforced by a piece of fish. If one is of the gentry and loathes to mingle with the common horde, he rents his sitting-room adjoining his bedroom and his meals are served to his suite. The kitchens are usually far removed from

large pewter cover.

The little maids who serve the meals are an attractive feature, dressed in black, with aprons and caps stiffly starched.

In Durham we found one quaint inn, where, on your arrival, the amiable hostess makes it a practice to send a glass of port wine to your room; or, if she greets you in the doorway, bidding you enter, she pours the wine herself.

It is a small favor, but in these days of hurried travel it smacked a bit of the good old time when mine host dispensed a large hospitality.



THE BELLS.

SOME PLAYS AND THEIR ACTORS.



Mlle. RITA ELANDI. METROPOLITAN ENGLISH OPERA COMPANY.

SOME PLAYS AND THEIR ACTORS.



MISS INGEBORG BALLSTROM.



MLLE. PHOEBE STRAKOSCH.



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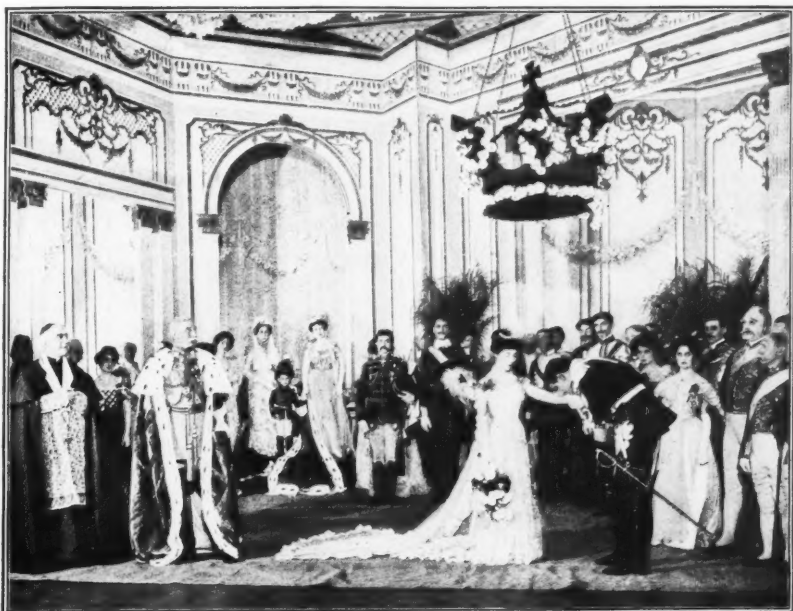
MLLE. ZÉLIE DE LUSSAN.



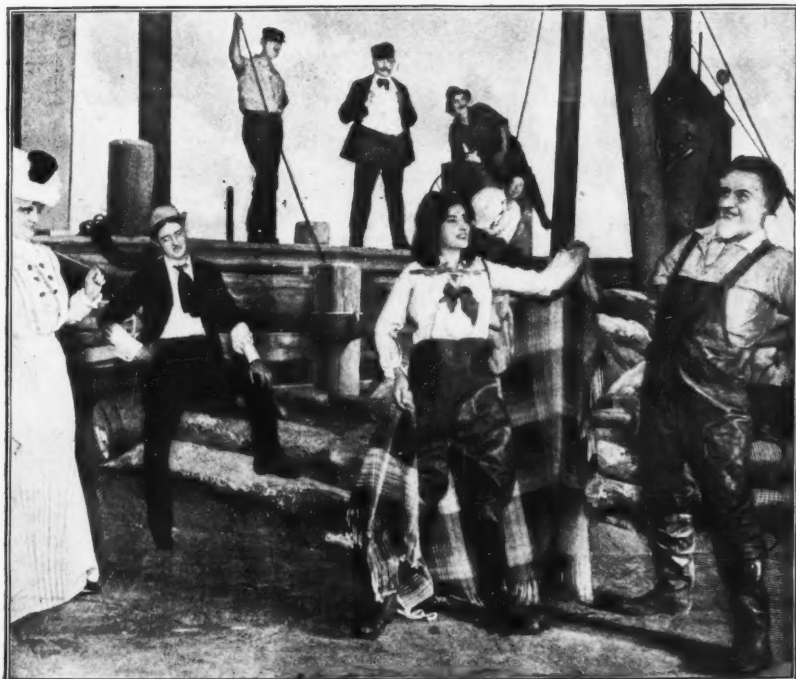
MISS FANCHON THOMPSON.

Some Members of the Metropolitan English Opera Company.

SOME PLAYS AND THEIR ACTORS.



Photograph by Byron.
MISS RUSSELL AND MR. RICHMAN IN "A ROYAL FAMILY." THE MARRIAGE SCENE, ACT III.



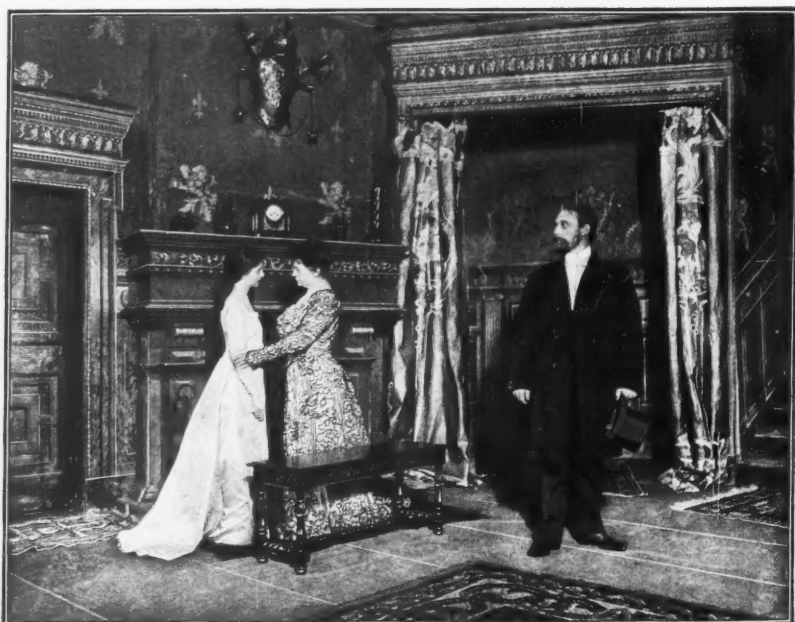
Photograph by Byron.
SCENE FROM ACT I OF "CALEB WEST."

SOME PLAYS AND THEIR ACTORS.



Photograph by Byron.

SCENE FROM "LOST RIVER," ACT I.

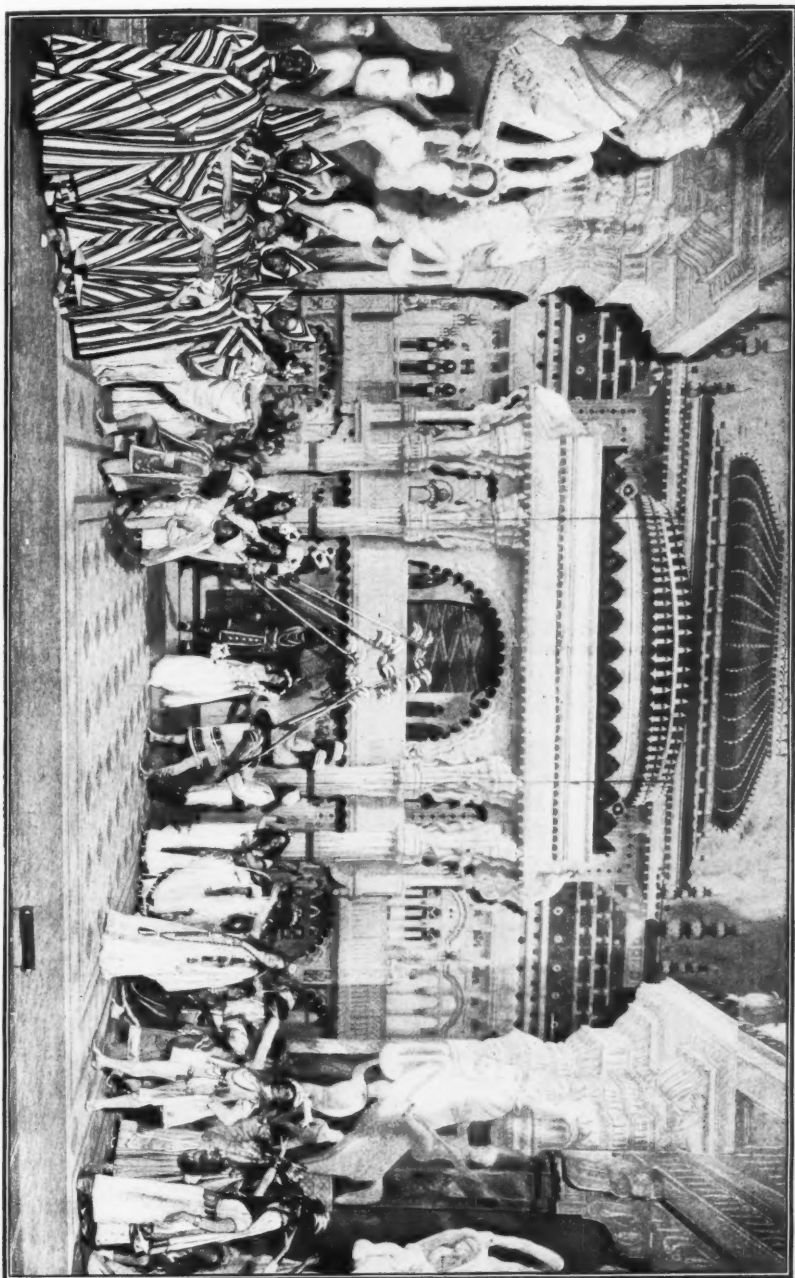


Photograph by Byron. MRS. LE MOYNE IN "THE GREATEST THING IN THE WORLD," ACT IV.

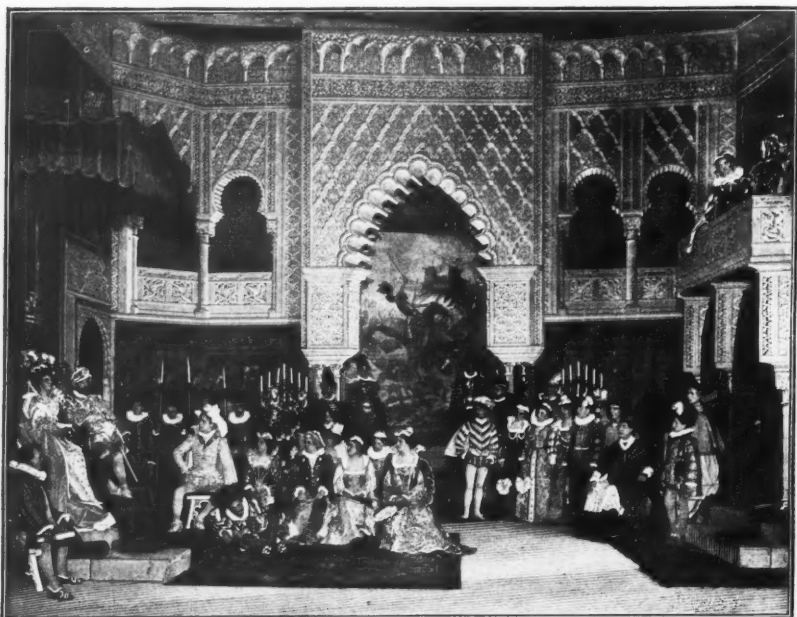
SOME PLAYS AND THEIR ACTORS.

Photograph by Ryman.

"SAVED FROM BUTTER." MISS MADGE LESSING IN FRANCIS WILSON'S "THE MONKS OF MALABAR," ACT III.



SOME PLAYS AND THEIR ACTORS.

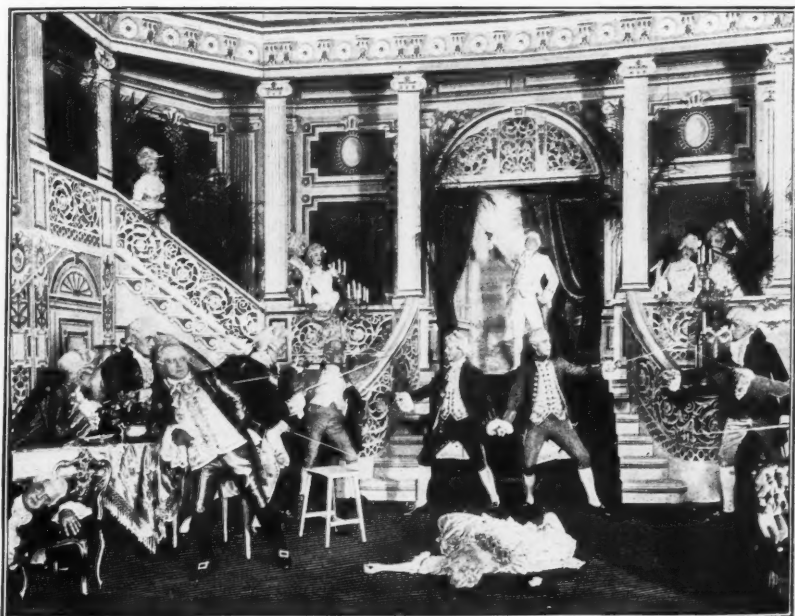


Photograph by Byron. SCENE FROM "IN THE PALACE OF THE KING." MISS VIOLA ALLEN.



Photograph by Byron. W. H. CRANE IN "DAVID HARUM." THE HORSE TRADE SCENE, ACT I.

SOME PLAYS AND THEIR ACTORS.

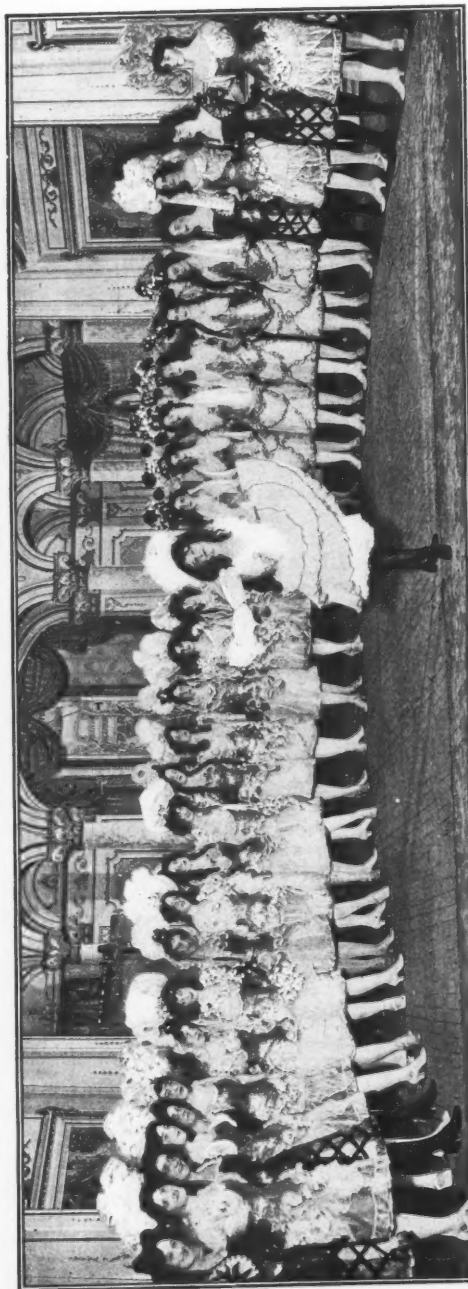


Photograph by Byron. THE DUEL SCENE. MR. JOHN DREW IN "RICHARD CARVEL."



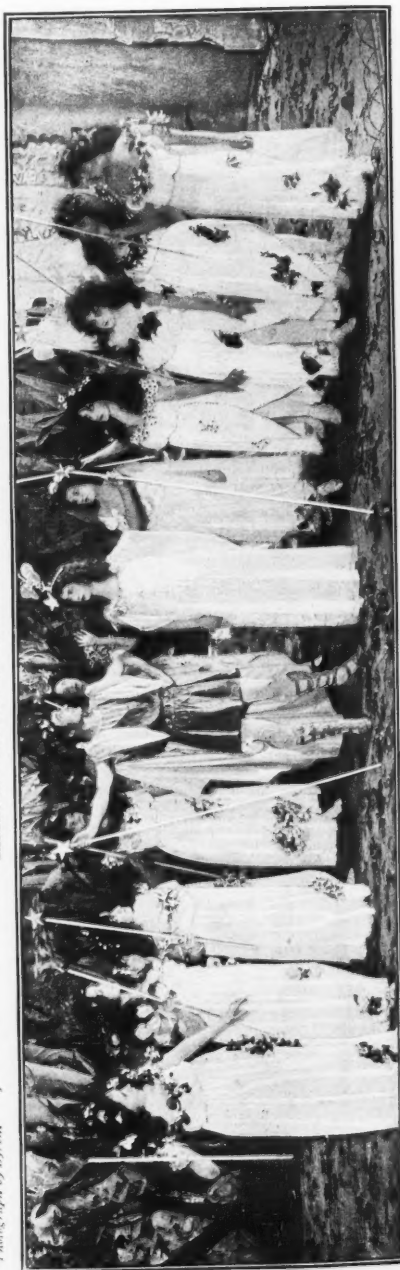
Photograph by Byron. SCENE FROM "THE CHOIR INVISIBLE," ACT III.

SOME PLAYS AND THEIR ACTORS.



BALLET IN "THE ROGERS BROTHERS IN CENTRAL PARK."

Photograph by Byron.



SCENE FROM MISS KATHRYN KIDDER'S PRODUCTION OF "A MIDSUMMER NIGHT'S DREAM."

Photograph by Byron.

SCENE FROM MISS KATHRYN KIDDER'S PRODUCTION OF "A MIDSUMMER NIGHT'S DREAM."

Photograph by Byron.



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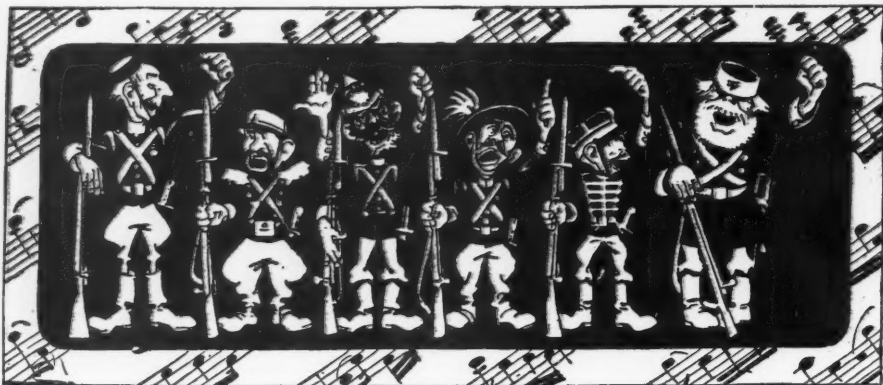
GREAT EVENTS: HUMOR AND SATIRE.



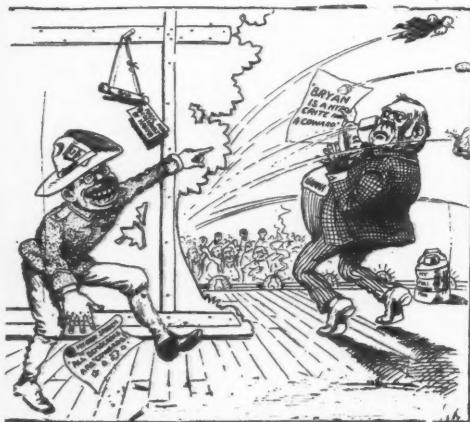
MR. BALFOUR: "Give you a dole? Quite impossible, my poor fellow. I have heavy family claims."
From the Westminster Budget.



A MIDSUMMER NIGHT'S DREAM OF THE FUTURE.
From the Westminster Budget.



THE CONCERT OF THE DEFENDERS OF CIVILIZATION IN CHINA.
Off with his head! | Tear out his legs! | Revenge! | Fire and sword! | Kill! Kill! | Steal and rob!
From Wahre Jacob of Stuttgart.



TEDDY: "Wow! talk about my bad breaks!"
From the Denver Evening Post.



EARL LI: "Nice doggie; pretty doggie!"
From the Detroit Journal.

GREAT EVENTS: HUMOR AND SATIRE.



CONTENTED AMERICAN WORKINGMAN: "Croker's monkey is certainly an amusing little cuss, but I haven't anything for him this year."
From Judge.



"CHRISTIANIZING" CHINA.
POWERS (to missionary): "You have done well. You have applied the lotion. We will rub it in."
From the Sydney Bulletin of New South Wales.



RALLY ROUND THE FLAG.
Bryan is pledged to haul down the flag in the Philippines, if elected.
From Wasp.

GREAT EVENTS: HUMOR AND SATIRE.



HANNA: "Trusts in America? Dear me, I never heard of them. Those chaps on the porch? Oh, they are merely industrial combinations."

From the New York Journal.



MARCUS SEEKS FAVOR OF THE GODS.

From the Cleveland Plain Dealer.



"HAVE YOU HEARD OF THE FULL DINNER FAIL? WELL, THIS IS IT."

From the New York World.



THE QUICK AND THE DEAD.

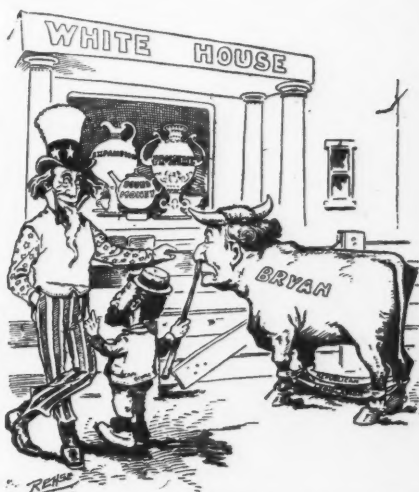
From the New Orleans Times-Democrat.

GREAT EVENTS: HUMOR AND SATIRE.



HANNA: "Hey, Tom, can't you hear me? We need you in our business. Wake up!" (But Tom says never a word.)

From the Kansas City Times.



SCHURZ: "LET HIM INTO THE CHINA SHOP, UNCLE. You see he can do no harm. He's all tied up."

From the Saint Paul Pioneer Press.



IN THE ELEVATOR. "GOING UP"—
All but the miners' wages.

From the Chicago Record.



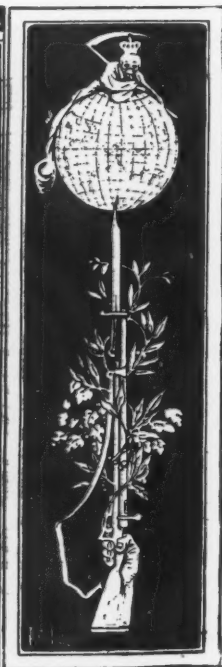
HARD FOR THE HOLD-UP INDUSTRY.
Millionaire: "Don't waste your time, boys, Mr. Hanna has just left me."

From the Chicago Daily News.

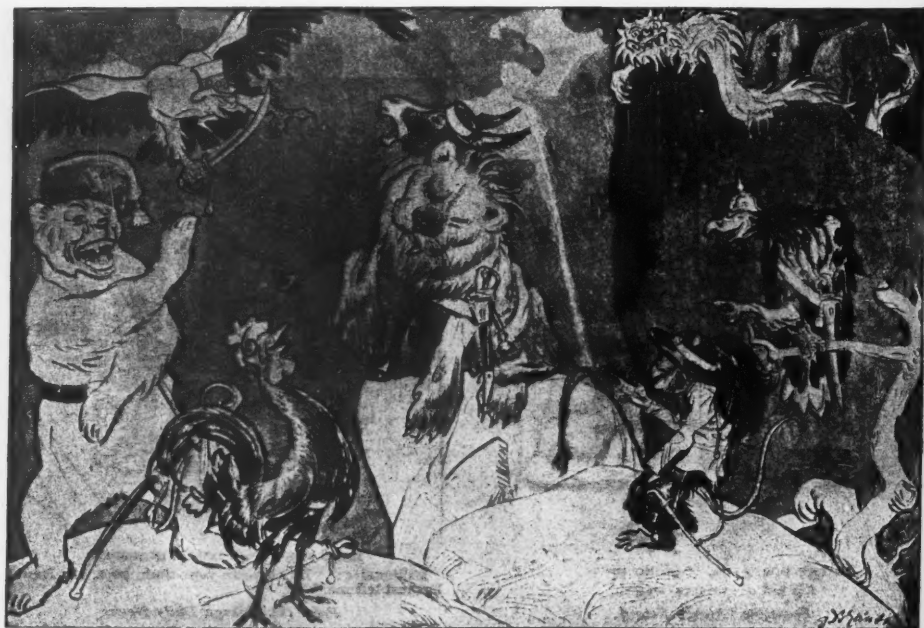
GREAT EVENTS: HUMOR AND SATIRE.



MILITARISM—RULES THE WORLD.
From Wahre Jacob of Stuttgart.



THE TREE OF MILITARISM IN BLOOM.
From Wahre Jacob of Stuttgart.



A GERMAN VIEW OF THE BRITISH LION.
CHORUS OF POWERS: "But you are no lion!"
From Kladderadatsch of Berlin.

